

Learning to be an Insider Agent of Change in a Brazilian Rural University

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ABSTRACT

The “University” is under pressure to address both local and general requirements from society towards a phenomenon called globalisation. In Brazil, the Ministry of Education has tried, without success, to promote institutional change. Confronted by this situation a process initiated by an internal change agent and based upon the introduction of Action Research was itself the subject of this AR Study by the change agent. This thesis draws upon the findings of that AR and uses it to critically examine the potential to foster change within the higher education context in Brazil using AR. The research was designed in two synchronous processes taking place at two different levels. The first is the facilitation of the uptake of Action Research by a group of academic staff, and the second is the research into that process as a piece of Action Research in its own right by the change agent/facilitator. Facilitation of change has been described as taking place in three phases: a) Mobilization; b) Implementation; and c) Continuation. Throughout such phases in this case data were systematically gathered by the use of five instruments of data collection: 1) Observation; 2) Diary; 3) Questionnaires; 4) Interviews; and 5) Sociogram. Results show my personal learning in facilitating this process of change and two main contributions to knowledge. The first is one which, though local and specific, may nevertheless speak to the challenges faced by other practitioners. Exemplified in this study by the critical exploration of the ‘Daisy Model’ of introducing AR that led to its modification into the ‘Flower Model’. The second is that new knowledge which appears to be more generalisable and for which a case can be made for its wider applicability. Again exemplified in the continuous and disruptive process of change that unfolded to reveal a suitable framework for the use of Action Research as a vehicle of change in a rural university in Brazil where all actions were based on four central principles that emerged from the research: neutrality, voluntary participation, time and motivation. The future success and sustainability of the change processes begun are contingent upon the reaction of the current management of the institution. Five scenarios are examined and a second phase for this AR project is suggested that attempts to address the issues raised..

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Acronyms

ARG – Action Research Group

DFID – Department For International Development

EAA – Agronomy School of Amazon

FCAP –Agrarian Science Faculty of Para

GDP – Gross Domestic Product

GED – Teaching Stimulus Reward

HE – Higher Education

IBGE – Brazilian Institute of Geography and Statistic.

ICA – Institute of Agrarian Science

ICAF – Internal Change Agent/Facilitator

ISARH – Institute of Socio-Environment and Aquatic Resources

ISPA – Institute of Animal Health and Production

MEC – Ministry of Education

Pro-UFRA – Project for the Institutional Strengthening of the Federal Rural University
of Amazon

SARG – Small Action Research Group

UFRA – Federal Rural University of Amazon

VSM – Viable System Model

WARG – Whole Action Research Group

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Chapter One

1. Introduction

Stafford Beer (1979) averred that the purpose of a system is what it does. As a professor from the university system within the Brazilian context I started this work motivated by the question: What is the purpose of a university? This rhetorical question reflects my concerns regarding the apparent enlargement of the distance between the university system and the requirements of society.

Obviously I am not alone in my concerns. In fact, several thinkers have demonstrated their uneasiness. Thus, Trigueiro (1999) described his and other's thoughts about the need for actions that change the passivity within the university system and the need to invigorate the university once again as a vital organ for the development of society. The government is also concerned about this situation and through the Ministry of Education (MEC) has taken several actions in order to overcome this scenario over a number of years.

Since the mid-1990s in Brazil there has been a continuing debate over what the former minister of education, Cristovão Buarque, once called "*the crisis of the university*". One major factor has propelled this debate: the new expectations of different social actors with whom the universities are being confronted in terms of their competitiveness, and their emphasis on knowledge generation and technological innovation. Thus, it is clear that universities are being required to reformulate their relationships with industry, private enterprise, and society as a whole. In the eyes of the government, that means using the budget more efficiently by doing more applied research and permitting greater transparency between the '*parallel*' worlds of the academic community and society as a whole.

1.1. *The Pattern and Problems of Previous Attempts at Change within the Brazilian Public University Context*

In the past the Brazilian public university system was able to track the change processes being experienced by society at large (Figueiredo 1996) and was considered an essential element in the development of society (Gonçalves, Santos, Maues, Rocha, Apple, Maues, & Soares 2003). However, in the last 20 years, while society has been creating alternative areas of knowledge over time, pushed by the forces of globalization (Pyle & Forrant 2002), the 'university' has carried on almost in isolation adhering to concepts which are sometimes outdated (Gonçalves *et al.*

2003). It is as if we have gone back to the age of the monasteries, when knowledge was imprisoned within their walls. Today the university institution has distanced itself from the longings of society, its needs and aspirations.

This process, whereby the university is becoming more and more distant from the needs of society, has been investigated by several authors in the past 20 years and, as a consequence, the research literature in Brazil has been filled by works that diagnose the 'crisis of the university' (Garcia 1981; Berchem 1991; Braga & Tramontin 1991; Favero 1993; Torres 1995; Carvalho 1998; Trigueiro 1999 and Gonçalves *et al.* 2003). These studies have recapitulated the reasons for the struggling organizational processes of public universities in Brazil which prevent both modernization and the provision of conditions adequate for the needs of lecturers and students, as well as exacerbating the circumstances that prevent the process of change of the universities from happening.

For instance, when Trigueiro (1999) revisited the challenges to the process of change, he argued that the 'Organizational culture' of the Brazilian universities involves a high degree of individual autonomy of lecturers which leads to a huge resistance to any external interference that is seen as a threat to this autonomy. Thus, as Mendes (1997) pointed out, whenever an external attempt to change the university system is proposed (in general by the Ministry of Education – MEC), professors take a strong, united line against it in a process of self defence that he called 'university corporatism'. This strategy is used to maintain the old patterns of behaviour, attitudes and privileges.

This corporatism is also expressed internally by the formation inside the universities of political factions that are involved in the struggle for control of power within the university context. In the end, as a consequence of this local corporatism, the political scenario is highlighted as a feudal political conflict where the different political groups are in constant dispute, generating a lack of internal communication due to the isolation of these different factions or political groups from one another (Trigueiro 1999).

Altogether these factors show that in order to challenge the status quo and to prepare the university for the new age of intense development, a process of change has to overcome its position of 'external enemy' (Bielschowski 1996). This external enemy has been invoked several times by professors, technical staff and students as a reason to offer resistance to programmes of change and new legislation proposed by MEC to improve the quality of university activities. In the end this 'automatic' defence against this external enemy has been responsible for a process of impoverishment of the innovatory and creative potential of the universities

(Meneghini 1992; Arrighi 1997). Thus, the final effect of this convergent way of thinking is that professors are limited in their critical capacity and, paradoxically, have less autonomy as the university becomes a hostage of the hegemonic groups (Marques & Keim 1995; Moretti 1995). These groups control and drive the university so that they can take control of any process of change and, moreover, avoid the possibility of a disturbance of their niche of power.

The idiosyncratic, 'dogmatic behaviour' amongst the professors could be seen as incompatible with the interests of the university and is considered by Mezamo (1994) and Keim (1994) as a serious threat to any process of change. This kind of behaviour is characterised by what is described by the first author as an 'ideological patrol' where new voices are isolated, at best, or even considered virtually subversive and therefore excluded from the institutional decision-making process.

Although several measures have been adopted by MEC in the past 15 years in order to bring about reforms, nothing tried so far really works because these reforms are neither deep nor sustainable. On the contrary, they are characterised by:

- Addressing the university as a entity that is independent of society and therefore needs to find a mechanism and instruments to create a relationship between them;
- Designing reforms based upon the view that all universities are equal and uniform;
- Designing reforms based upon the view that the objective is to reduce expenses;
- Threatening penalties or contingencies instead of capacity building and support for institutional strengthening.

To sum up, MEC has failed but a successful method must be found for UFRA and other universities.

In my view, to have success a process of change within this context has to be rooted in autonomous professional development (Imants, Slegers, & Witziers 2001; Chitpin & Evers 2005) and open communication (Hanushek 2005), which will tend to overcome the limits imposed by the current system (Trigueiro 1999), and establish an environment rich in free discussion, negotiation and respect for differences. In this way Jurgen Harbemas' ideas of communicative actions (Finlayson 2005), suggest that real social development comes through the achievement of consensus among different ideas and not from imposition by the most powerful.

1.2. *The UFRA Context*

The Federal Rural University of the Amazon (UFRA) was originally created in 1951 as the Agronomy Technical School of the Amazon (EAA) and then in 1972 was

elevated to the status of a Faculdade under the name of the Agrarian Science Faculty of Para (FCAP), before receiving the charter of a University in 2002. Thus, although new as a university, UFRA as an institution has a history of more the 50 years.

In those last 50 years, UFRA - as I will refer to the university from now on - has contributed to the Amazon region's rural development by training professionals in agrarian sciences such as agronomy, forestry engineering, veterinarian medicine, and, more recently, in fish engineering and animal production. However, in the last 20 years UFRA, in common with other universities, has got out of step with the development of society and its requirements. Thus the professionals and the services provided by the university have become more and more outdated¹ (Botelho, Santana, Gomes, & Fernandes 2003).

In attempting to cope with this situation the organizational structure of UFRA has passed through deep modifications and is currently formed as shown in Fig. 1.1. However, although recently revised, this structure emerged through a process that reflects the political rather than the academic environment at UFRA. That is, the people responsible for designing this new organizational structure were selected as a result of the political conflict for control of power. Thus a dominant political group has shaped the structure in order to retain the status quo, preserving some problems from the past such as the isolation of institutes and the low level of participation of the academic community in the life of the university.

After the last elections the new senior management team have been thinking about other changes, in order to address some of the new requirements and solve the old problems. These problems include, for example, a structure which shows heavy hierarchical processes of decision-making and decision-taking (Kowalski 2006) in which the regular members of the academic community (professors, students and technicians), who are not members of the councils, are kept enclosed inside the institutes (represented by the coloured circles) at the bottom of the 'pyramid'.

Thus, a new political group is now motivated by the same old reasons that led the former managers to reshape the organizational structure. However, as has occurred in the past, the political environment is likely to overcome the academic mission and in the end the reform process can be once more co-opted by political demands. This is likely to occur because the centralised decision-making and decision-taking processes are responsible for an environment of tremendous conflict for power and control. To this end, the university community (mostly professors and

¹ A process characterised as the 'Sabre Tooth Curriculum' (Benjamin 1939).

technical staff) has been divided into two or more political groups that dispute the management posts in a vociferous election process.

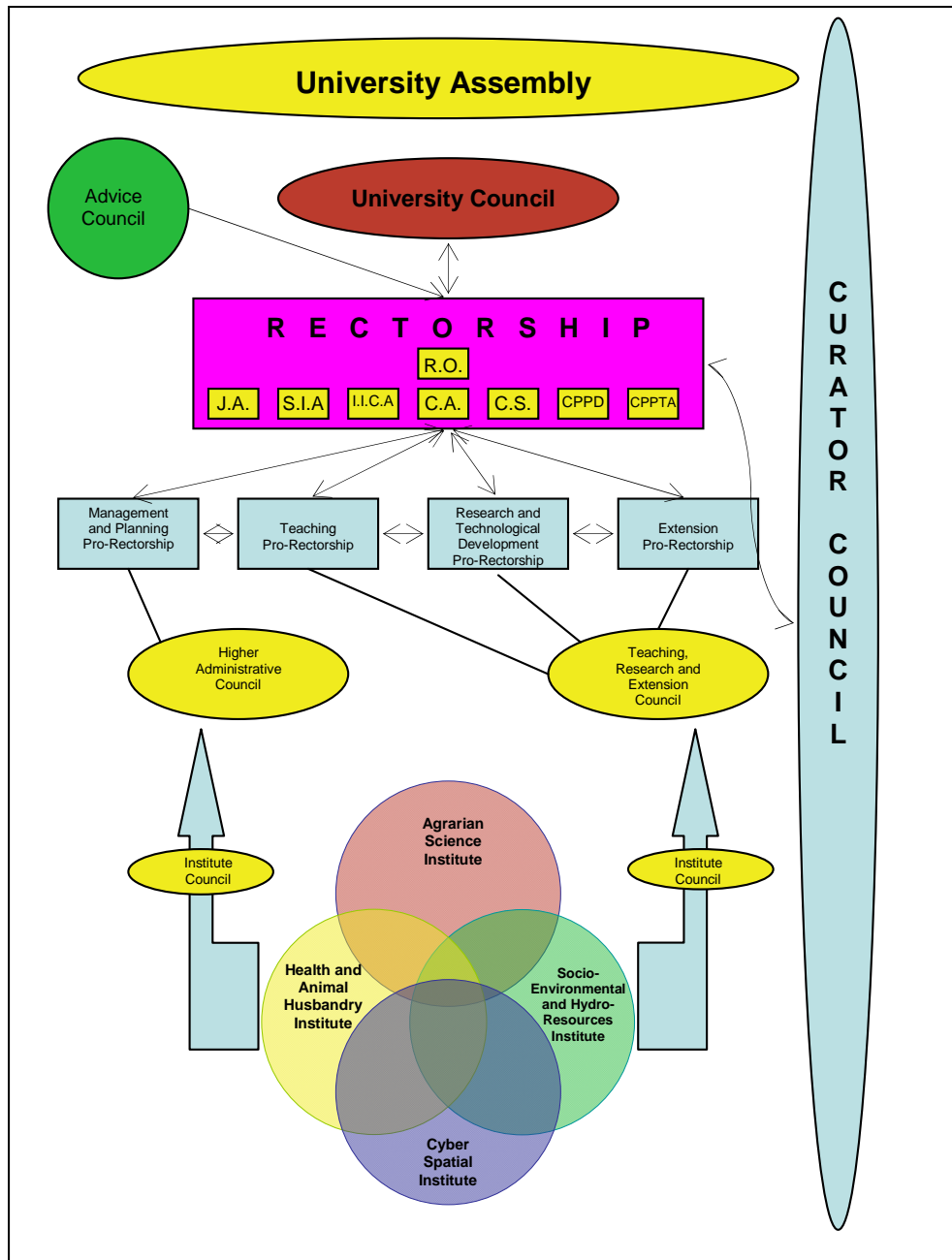


Figure 1.1: Organizational Structure of UFRA.

The senior managers of the university are elected every four years in a democratic but, nevertheless, confused process. It is confused because despite the rules set by MEC at the national level, each university in Brazil presents its own procedures for the election process that in general are different from what was ‘agreed’ nationally and that also are likely to change with every election.

The institutional tension during the period of elections is huge and the consequences far reaching. For instance, it prevents truly democratic discussions amongst professors, so that the autonomy mentioned before has become in fact isolation. Currently, professors are afraid to speak openly about issues that involved anything more than their research or teaching subjects. In addition, the managerial duties are being constantly given to a small group of professors involved directly in the political clashes whereas most of the other professors are excluded. In the end, just like the institutes at the bottom of the structure, the vast majority of the academic community are totally isolated from the processes of decision. Thus, hidden within the so-called 'democratic' decisions taken in the different councils in the organizational structure involving only those professors, technical staff and students elected to the managerial posts, there is a lack of communication that is contributing to an increase in the number of staff and students that do not know about such decisions nor even about much wider matters such as the institutional mission and vision.

Particularly at UFRA, nepotism is a factor that inflames the political scenario. Before the introduction of the public entrance exams, at the end of the 70's and the beginning of the 80's, almost all staff at UFRA (professors and technicians) were hired based on nominations by former professors and/or technicians. As a result, today, a large proportion of UFRA's staff is constituted by two generations of four major families.

Altogether, the only moment that it is possible to recognise as an integrated discussion process that involves the whole academic community occurs during the time of industrial action (strikes). In general, these strikes are motivated by dissatisfaction with remuneration and more recently by the attempts from MEC to implement higher education reform. In general, a strike is expected to occur every year in April just before the government is to announce the new salary level or during the second semester when the annual national budget is presented. According to the statistics presented by the government (IBGE 2005), in the last ten years there was an effective loss of one academic year as a result of these strikes. More than that, these strikes represent a serious barrier for the continuity of any systemic process of change being carried out within the university.

Let me now give you more details about the recent history of UFRA and its relationship with this particular study.

1.3. *Management and design of a programme for change: The early steps*

In 2001 an institutional strengthening project, supported by the British Department for International Development and managed by the University of Wolverhampton's Centre for International Development and Training, called Pro-UFRA (Project for the Institutional Strengthening of the Federal Rural University of Amazon) was started. This project aimed to help UFRA to overcome the institutional barriers in order to become an effective and powerful institution acting in favour of the poorest. The project operated in six different areas simultaneously: 1) Strategic planning; 2) Management systems; 3) Stakeholder assessment and involvement; 4) Teaching methodology; 5) Curriculum development; and 6) Communication systems. This proposal was intended to break with the bureaucratic structures and the vertical and highly hierarchical processes of decision-making and decision-taking that were diagnosed as the main obstacles to the institutional strengthening of UFRA, to improve the teaching methodology skills and finally to develop a curriculum that would match the new demands from society.

However, I consider that the Pro-UFRA process of adoption of a new educational paradigm would only have been possible if the organizational structure had been replaced by a new structure of management. This process should have taken into consideration not only the concept of institutes and departments, but also the institutional environment that in the end prevented the new organizational structure from being implemented as initially designed in relation to the internal factors that prevent the process of change within the higher education context in Brazil. In this regard, the Pro-UFRA project needed to recognise that besides the objective conditions for change, the actions for this purpose would have to address the subjective interpretations of the process of change as well as individual representations of the institutional context (Vieira 2003).

However, regarding the design of the Pro-UFRA project, this was not the case. In fact this need was not recognised by the project and the conduct of the process by an external consultant once more brought into play the figure of an external enemy that aroused internal tensions and conflicts. As a consequence the project was rejected by the academic community, which claimed that the process was centralized and driven according to the interest of the dominant political group. Thus, despite some isolated successful achievements within the Pro-UFRA project, this model of the process of change was incapable of overcoming the internal factors that prevent the sustainability of the change process (Botelho 2004).

Botelho *et al.* (2003) recognised within UFRA the same factors mentioned by other authors for the Brazilian higher education context that prevent change and related these factors to the inadequacies of the Pro-UFRA project. Thus, as noted throughout this description, the scenario for institutional change within the UFRA context offered a challenge to the bureaucracy and slow pace of the decision-making and decision-taking processes; the lack of communication; the largely inflexible and dogmatic behaviour of professors; and a feudal system of institutional politics associated with nepotism and corporatism (Meneghini 1992; Keim 1994; Mezamo 1994; Marques & Keim 1995; Moretti 1995; Bielschowski 1996; Mendes 1997; Trigueiro 1999).

All this notwithstanding, there is no doubt about the central role that needs to be played by UFRA in relation to the reduction of poverty in the Amazon region. This should involve, for instance, direct impacts on livelihood assets (DFID 2003), engagement with local policy discussions (Mitschein & Miranda 1996) and transformation of other organizations in order to reduce the vulnerability of communities by enabling them to recover from shocks and the impacts of seasonality (Fig. 1.2) (Lambert 2002).

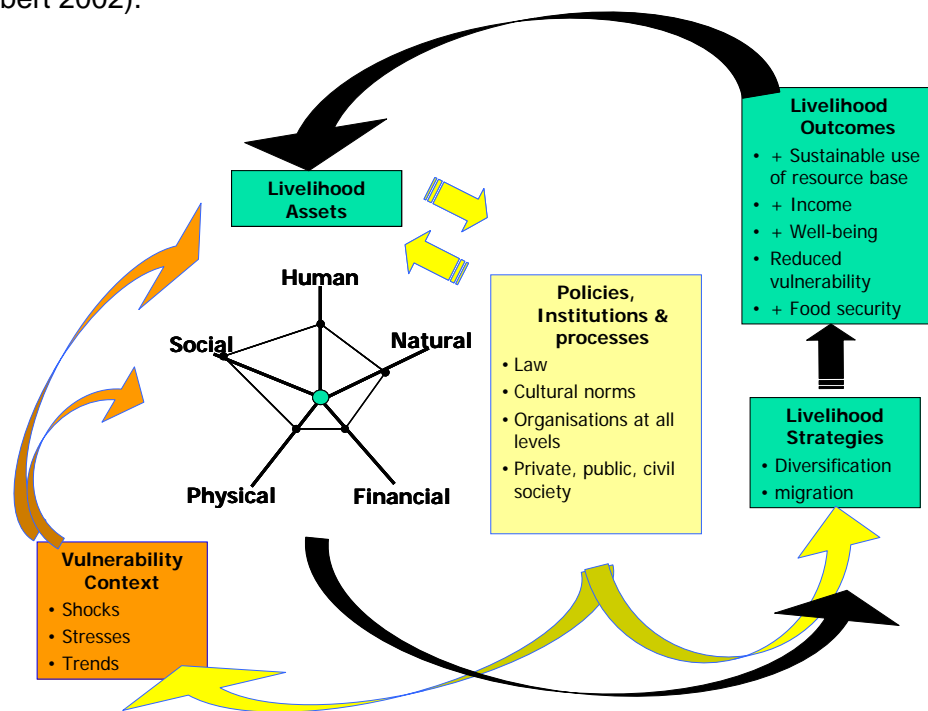


Figure 1.2: The Sustainable Livelihoods Framework (Adapted by R. Roland, after Carney 1998)

The sustainable livelihood framework, as captured in Fig. 1.2, presents five different assets or capitals (human, social, natural, physical and financial). Although a community can be considered strong in relation to one or more of these assets, at the end of the day it is the weakest capital that will drag down the community into the

poverty condition. Even if a community has satisfactory levels of all types of assets this community may still remain vulnerable to shocks, trends and seasonality imposed by policies dictated by the government (local and national) and institutions from the public and private sector.

Thus UFRA, as a rural university, has the capability to exert influence over many components of the framework, not least the Policies, Institutions and Processes, that may directly strengthen the communities in relation to their level of livelihood assets and influencing policies in favour of the poorest in the rural zone. Nevertheless, to play this role UFRA needs to change the way that the activities of teaching, research and rural extension are conducted in order to address those questions of poverty reduction set out during the Pro-UFRA project. The challenge posed to such processes of change lies in the way that they must be facilitated holistically in order to generate a process that systematically analyses and responds to prevailing circumstances (Kowalski 2006). In this regard Ellerman (2005) argued that authentic change requires internally sourced motivation and active learning by the participants in opposition to the imperatives of the organization.

1.4. *The setting of this study*

Thus, I focused the design of this study around the lessons learned from the Pro-UFRA project. I had to awaken and develop a new attitudinal style independent of the organizational structure. This had to be embedded in changes of behaviour and attitudes of individual professors rather than by providing solutions to the current problems of the organizational structure.

For this purpose, this study had to be designed as an approach that encouraged professors to systematically find their own solutions to each situation and reflect upon them, as initially suggested in Fig. 1.3.

Although the lessons learned through Pro-UFRA had provided insights to change the focus of the process of change, this approach as initially envisaged still seemed to be top-down in the linear fashion of transfer of technology (Chambers 1997). That is, to echo Paulo Freire (1971a), it required a process of 'domestication' of professors as change agents, who are currently expected only to teach what to do and not encouraged to question what they should do and reflect upon their own solutions.

Educational change is undoubtedly one of the most complex processes to manage. The success of these changes relies on the model of management adopted and a capacity to get results through people and teamwork, without taking a focus off the institutional mission (Dawson 1994).

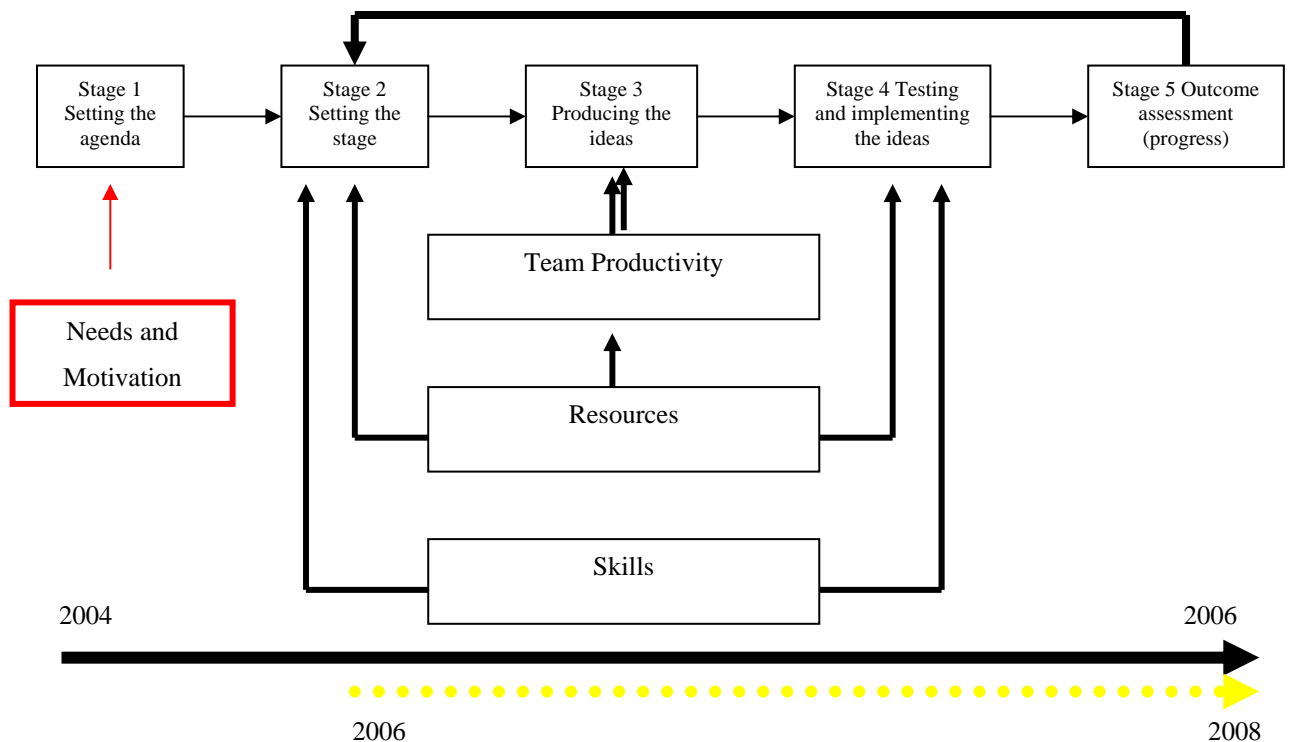


Figure 1.3: Management of the change programme for UFRA (Adapted from Greenberg 2002).

Paradoxically, within the Brazilian higher education context, the need for autonomy claimed by the professors contrasts with the attitude that relies totally on the managers' decisions for the conduct of the university. Rather decisions taken by the managers are rarely challenged unless they confront an individual interest, as closely observed during the Pro-UFRA project (Botelho 2004). Thus, the question that needed to be answered at this stage was: **How could a sustainable process of change and development that is owned by the staff of UFRA be initiated?**

Some ideas were considered in order to provisionally answer this question. As pointed out by Fullan (2005), the sustainability of a process of change could only be achieved by the deep learning, commitment to changing the context at all levels, dual commitment to short-term and long-term results, cyclical energising and long lever leadership. These ideas are supported also by authors such as Barber (1995), Hargreaves (1996) and Chapman (2002), amongst others.

Deep learning refers to the continuous improvement, adaptation, and collective problem solving in the face of complex challenges that continuously arise. In other words, adaptive work demands learning, experimentation, and the necessity to drive out fear.

To be committed to change at all levels means that it is necessary to become able not only to transform the institution but also to give people a taste of power in

the new context by giving new experiences, new capacities, and new insights into what should and could be accomplished. This can also be understood as a process of combining things that look as if they are mutually exclusive. Thus short-term goals may be accomplished at the expense of the long-term, but do not have to be. On the contrary, they are mutually important in order to re-energize the process.

Cyclical energizing is the idea that the initial success is not powerful enough to take the process of change to higher levels. That means it is necessary to see the process not as a marathon but as a series of sprints where each small victory provides the energy for the next. Also, it is necessary to recognise that the overuse of energy during the first sprint could compromise the second one (Fullan 2005).

The ideas for the study were also based upon the concept of 'Community of Practice' (Wenger 1998a) in which change is considered to be a learning process based upon a Social Theory of learning founded upon the 4 premises outlined by Wenger 1998a, p. 4) as:

1. We are social beings.
2. Knowledge is a matter of competence with respect to undertakings.
3. Knowing is a matter of participating in the pursuit of such undertakings – of active engagement in the world.
4. Our ability to experience the world is meaningful.

Based on these ideas, one methodological approach suggested itself as the possible answer: **Action Research (AR)**. By reviewing the early works conducted by Lewin, passing through the works of Carr and Kemis, Elliot, and Stenhouse² amongst others, Action Research clearly represents those elements capable of creating the environment for this learning process. It should be able to produce practical knowledge which would be useful to develop a more equitable and sustainable relationship with the wider institution of which I am an intrinsic part. In brief, Action Research is a bottom-up approach of reflective practice that empowers those professionals involved in a participatory community of practice. More broadly, Action Research creates theories which contribute to emancipation and reflection, to the involvement of all stakeholders and finally to the development of skills of inquiry; and as a community of inquiry develops so too does a community of practice (Altrichter 2005). Thus it stimulates an evolutionary and developmental process of change.

Action Research has also a clear political agenda which is inherent in the method. It is about empowering people. This is essential under the context of this research characterised by a highly political environment where the power

² The works of these authors are explored in more length in Chapter 2.

relationship is always to be considered in order to achieve institutional impact, rather than superficial change. Furthermore, the concept of empowering people, through helping them to think reflectively in order to direct their own change processes, was supported by Stacey and Griffin (2005, p.33) who wrote:

“As people make sense differently they act differently, and it is in this action, in continuing interaction with others, that macro patterns change in emergent ways which cannot be predicted or controlled.”

Thus, Action Research has the potential to be the mechanism to bring about a deep and sustainable, though not directed, process of organizational change, but only if it is introduced in an effective manner. However, there is little information about how to proceed, particularly in a Brazilian Higher Education (HE) context. So the form and scope of this study became **(1) what is the best way to introduce an Action Research approach for academic staff at UFRA?; and (2) how can university professors with little knowledge of Action Research be trained through the actions of this Action Researcher, supported by experienced researchers, to develop professionally and build their own capacity for change by engagement with another research methodology?**

It is important to note that, although this project is about organizational change, its actual scope is not about changing the organization *per se*, since the maximum time available was a three years study. In fact, the true scope of this study was to learn about: **(3) how to introduce Action Research as a methodology to build capacity to change?**

Thus, by answering successfully these three questions through a process of reflection upon the lessons learnt by the author as an internal agent of change, the aim of this work was to construct a conceptual framework capable of initiating a sustainable process of change suitable for UFRA and other rural universities in Brazil.

In addition, the work and ideas of Argyris (1982) regarding Action Science emphasised the role of the external facilitator and in particular that the facilitator should also be engaged in researching their actions. In my claim for the achievement of this aim I will start by portraying, in Chapter Two, a literature review with relevant insights from the fields of Action Research, organizational studies, management of change and organizational development. This represents the theoretical bases for my methodological plan to conduct this research that I will present in Chapter Three. After the presentation of the methodology the specific methods used for data collection will be outlined in Chapter Four, that is, the description in detail of the use of each instrument of data collection, where and when each planned action for the

research was undertaken and with whom. Also a clear timeline will be provided of the actions followed.

The next chapter will be dedicated to the presentation of the data collected and a discussion of its significance. The data will be presented in fuller detail against the timetable set out in the methodology, with the data sets being presented separately (questionnaire, interviews, observations/diary and sociograms) and followed by the analysis of their interactions in regard to each phase of the project as framed within the methodology chapter.

Also this chapter will show the results at the individual participant level of change in the first instance and the impact upon the participants in terms of their professional development. Then it will reflect on the way that it impacted upon the whole management of education across UFRA, including the assessment commission. And, finally, the chapter will report the generation of external interest demonstrated by other universities and the wider management of rural higher education.

The conceptual theory generated by this study will be presented in Chapter Six showing cross-references to the data presented in the previous chapter, to the literature review and to the results provided from similar studies elsewhere, enriching the reflection about the results and the claims to knowledge made.

The final chapter of the thesis will be focussed and structured by reference back to the research questions set out in this introductory chapter. A number of statements containing the lessons learnt throughout the whole process to demonstrate what has been learnt by the author in terms of being an internal agent of change will be made.

Chapter Two

2. Literature Review

By its very nature this study is multidisciplinary, requiring both an understanding of the context, of the methodology, of the professional practice being researched and of the contested nature of the concept 'organization' within which all of this is being conducted. As a consequence it would be unrealistic to seek to provide within this thesis a complete review of each of those themes listed. Instead I will seek to set out the key concepts, arguments and positions that pertain to each, with a brief, but I hope sufficient, overview of those aspects that provided the inspiration and the guidance for the conduct of this research.

I also strongly believe that it is crucial to the full comprehension of my narrative and claim to knowledge to begin by providing the background information regarding the context in which this Action Research project was conducted. Thus, I will start with an introduction to the Brazilian social scenario, so that the need for change that motivated this study can also be understood from a social perspective. Then I will turn to the matter of Action Research itself in order to set the context of the methodological approach of the study and deal with some of the philosophical arguments that surround it. Thirdly I will consider the various ways that people have approached the description and explanation of the concept 'organization', to look at how these impact upon the issue of organizational change processes, in order to simply place this project and study in a wider and longer term context. Finally, I will move to the matter of the management of change so that I can explore the triggers for change processes, the sources of resistance and the way to deal with them, and the different models of change envisaged.

2.1. *A social perspective of Brazil*

Brazil is the fifth largest country in the world in terms of area. Brazil is also ranked as the fifth most populous nation in the world with a population just above 180 million. Brazil has by far the largest economy in Latin America with Gross Domestic Product (GDP) of \$499.4 billion in 2002 (IBGE 2002). In the latter half of the 20th century Brazil took its place on the world stage as a considerable global economic force and as a regional leader politically. Therefore, Brazil is clearly one of the most important emerging influences in the world today (IBGE 2005).

However, despite the fact that, according to the specialists, Brazil cannot technically be classified as poor, the country ranks among the most inequitable countries in the world (Reis & Moore 2005). That is, although the *per capita* income places Brazil at an intermediate position in the world economic stratification system, the proportion of its people that are poor matches those countries recognised as having severe poverty problems (Barros, Henriques & Mendonça 2000).

In this regard Saha (2001, p.8) suggest that: *“Local economies are constantly impacted by the national and international economic developments”* and also *“the globalisation has tended to erode the ability of the national states, particularly those states located away from the global centres of economic power, to effectively manage economies ... because they are no longer in control of the crucial variables affecting them”*.

Thus, Brazil is also known for its internal, regional disparities. There exists a huge difference between the richer and poorer regions of Brazil. The nine states of the northeast and the Amazon Region tend to be much poorer than the southern states. São Paulo, the richest state in Brazil, has a *per capita* income seven times higher than that of the poorest state, Piauí. Such dramatic differences are due in large part to the varying degrees of regional development, education, health, land ownership, capital assets, public spending and policy (IBGE 2005).

Nevertheless, as pointed out by Saha (op. cit., p.9-10): *“the democratisation has on the other hand spurred new aspirations for effective participation in all aspects of decision making of state power by all sections of the civil society spread out in local communities”*, and moreover: *“the dissonance between these two forces needs to be harmonised without which the states are likely to face a new legitimacy crises”*.

Also, it is necessary to recognise that the extraordinary wealth of natural resources of Amazonia³ contrasts sharply with the precarious sustainable livelihood conditions to which the greater part of the population of the region are subjected (Zahn 2001). This can be characterised by deep nutritional deficiencies, not meeting basic needs in the areas of sanitation, health (Brundtland 2002) and education (IBGE 2005), as well as low levels of income both in the rural area and urban centres (Santos 2003).

Amazonia has historically been a frontier of Brazil and continues to be so. It represents 45% of the national territory but only 5% of the GDP. Such disparity can also be clearly identified in the State of Pará (the second largest State in Brazil and where this study was undertaken), in terms of the urban area and the countryside.

³ For our purposes the region Amazonia is made up of the Brazilian states of Amazonas, Para, Rondonia, Roraima, Acre, Amapa and Tocantins.

For instance, Belém, the capital, has the human development coefficient of 1.77 whereas the other 131 towns in the rural areas together show a coefficient of only 0.65 (IBGE 2005).

In the last 12 years the government of the State of Pará has followed the national plan for development and focused on a policy of economic development based on three-legged support: Agro-industry, Tourism and the Mineral Production Chain (Santana 2001). The question regarding these macro projects is: *Who are really receiving the benefits?*

To predict the results of this policy without participation is not difficult. In fact Porter (1990, p.154) already offered an indication:

“Often competitors in many internationally successful industries, and often entire clusters of industries are often located in a single town or region within a nation ... The city or region becomes a unique environment for competing in the industry... Geographic concentration of firms often occurs because the influence of the industrial determinants ... and their mutual reinforcement are heightened by close geographical proximity”.

Unfortunately, according to Brundtland (2002) and Santos (2003), this strategy is not being developed with the wider participation of the community. Thus, although theoretically this policy should lead to an increase in agricultural production and an increase in income for the rural population (Santana 1998), which should in turn lead to a positive impact upon poverty, the disparities are increasing sharply. This can be described by the geographic concentration as quoted above from Porter or by the well known saying: ‘the rich are getting richer while the poor are getting poorer’.

However, authors like Llorens (2001) and Machado (2003) argue that this model of economic development rooted in a strategy of centralising development is not the only possible one. Among other strategies are ‘bottom-up’ ones, which are sustained by factors not only economic, but also educational, social, cultural and territorial (Redclift 2003).

In the progress towards a more socially just society in Brazil, through the achievement of a more participatory model of development, it is absolutely necessary that the university’s role of training competent professionals “...committed to citizenship, the production of knowledge that effectively contributes to sustainable development, social inclusion, quality of life and social equity...” (Buarque 2003, p 26), should be realised.

2.2. Action Research

2.2.1. History, contexts and differences from other paradigms

As Stacey and Griffin (2005, p.2) recognise: *“The move from positivist quantitative research methods to interpretative qualitative methods is no longer contested in the literature on organizations.”* Amongst the qualitative methods they list is Action Research. Traditionally Action Research is represented as one model within the paradigm of naturalistic enquiry (Lincoln & Guba 1985) in which the researcher is an integral actor within the research arena and not separate from it.

Historically, the concept of Action Research has been attributed to Kurt Lewin (1947). Gill and Johnson (2003, p.75) suggested that his: *“greatest contribution was probably the idea of studying things through changing them and then seeing the effects of those changes.”* However, as they further point out, despite Lewin's commitment to democratic inquiry his approach demonstrated that: *“the momentum and direction of change derives from the scientist's agenda while the involvement of actors in the research process is principally about facilitating the implementation of the desired organizational change.”* (Gill & Johnson op.cit.).

This characteristic of early attempts at Action Research possibly occurred because these interventions were carried out by an outsider who collaborated to varying degrees with insider practitioners or community members. The curriculum research and development carried out by Stenhouse (1975) was rooted in the idea that teachers should aim to become extended professionals through the commitment to be systematic in their own teaching and the concern to question and to test theory in practice. This then became a basis for development based on the support of an external researcher who was more powerful than the teachers with whom they worked.

In the end, these interventions were able to generate only E-theories⁴ (McNiff & Whitehead 2003) about the practices developed from observing how the practitioners behaved within their daily practice, and to evaluate their behaviour in terms of effectiveness in producing desired outcomes. This can also be linked to the **‘espoused theory’** and **‘single-loop learning’** concepts in organizational learning (Argyris 1999)⁵.

⁴ *“An E-theory exists as a form of theory external to its creator and which is generated from the study of the properties of external objects.”* McNiff & Whitehead (2003, p.22)

⁵ Which will be taken up again in section 2.4

Based on the views of Stenhouse other researchers, namely Elliott (1985, 1991); Ebbutt and Elliott (1998); and Carr and Kemmis (1986) revitalise educational Action Research. They arrived at the idea of personal forms of knowing juxtaposed to the traditional E-theories, which McNiff and Whitehead (2003, p.22) describe as I-theory: “*a dialectical form of theory, a property of an individual’s belief system*”, which those authors take to result from Action Research: “*theories which are already located within the practitioner’s tacit forms of knowing, and which emerge in practice as personal forms of acting and knowing.*” and which characterized the later developments in educational Action Research. Here the professional teacher was the driver of the research, as Eden and Huxham (1999, p.274) expressed it: “*the researcher as investigator, subject and consumer*”, and where if an external agent is involved at all it is as a facilitator (Melrose & Reid 2000).

Additionally, greater emphasis was placed upon the term collaborative, so that: “*Action research is concerned equally with changing individuals, on the one hand, and, on the other, the culture of the groups, institutions and societies to which they belong.*” (Kemmis & McTaggart 1992, p.16). Or as Zuber-Skerritt (1996, p.3) expressed it: “*emancipatory action research ... is collaborative, critical and self-critical inquiry by practitioners ... into a major problem or issue or concern in their own practice. They own the problem and feel responsible and accountable for solving it through teamwork.*”⁶

Nevertheless, within organizational Action Research the role of the external agent or consultant is still the dominant approach for, according to Eden and Huxham (1999, p.273) : “*Action research involves the researcher in working with members of an organization over a matter which is of genuine concern to them and in which there is an intent by the organization members to take action based on the intervention.*” and the objective is generally not for the empowerment of groups and individuals, but to come to an understanding of the organization that enables modifications to be made to it. Thereby reflecting an adherence to the primacy of E-theories within organizational studies. Nevertheless, this is also the basis of Action Science (Argyris 1982, p.475) since: “*Clients engage the professional expertise of another in order to be helped.*”, although the main purpose is to enable the clients to explore their own theory-in-use (or I-theory) and its impact upon the functioning of the organization.

Influential models of Action Research have been produced to explain the process in a variety of ways (Elliott 1991; Kemmis & McTaggart 1992; Bowen 1998). Amongst all these models and descriptions of Action Research those of Carr and

⁶ Quoted in Cohen, Manion & Morrison (2000, p.232).

Kemmis (1986), in particular, were very influential for this study as they emphasised and advocated the emancipatory aspect of the Action Research approach and the need to be critical in understanding the socially and politically constructed nature of practices (Habermas 1990).

In essence, therefore, we can say, with Herr and Anderson (2005, p.3) that: *“action research is inquiry that is done **by** or **with** insiders to an organization or community, but never **to** or **on** them.”* and that the combination of research with action brings about a disciplined inquiry in which individuals or groups make an effort to understand and change their own practice. Hence, Action Research is portrayed as a powerful tool for change, particularly at the local level.

Consequently, Action Research has become accepted in many fields of qualitative social enquiry such as organizational change (Carnall 2003; Waser & Johns 2003), health (Khresheh & Barclay 2007) and, not least, education (Harland & Staniforth 2000; McPherson & Nunes 2002; Herr & Anderson 2005).

2.2.2. Principles and Philosophical position

The emergence of Action Research has been motivated by the recognition that any process or organization can be most deeply understood if the researcher is part of it, which can be achieved by the research facilitating improvement-oriented change from within the organization (Elden & Chisholm 1993). As Eden and Huxham (1999, p.272) recognised: *“the involvement with practitioners over things which actually matter to them provides a richness which could not be gained in other ways.”* Furthermore, in developing their radical departure from the more customary forms of AR, which they term the complex responsive processes (CRP) approach, Stacey and Griffin (2005, p.1-2) put forward the view that:

“If patterns of human interaction produce nothing but further patterns of human interaction, in the creation of which we are all participating, then there is no detached way of understanding organizations from the position of the objective observer. Instead, organizations have to be understood in terms of one’s own personal experience of participating with others in the co-creation of the patterns of interaction that are the organization.”

They noted a number of principles of Action Research that coincide with those of the CRP approach and which I find instructive for summarizing the AR position. They recognise that “both:

- *Argue that positivist methods and the simple position of the objective observer are not appropriate for researching social phenomena;*

- *Are theories of social action;*
- *Seek to avoid splitting theory and practice;*
- *Are concerned with emergent phenomena;*
- *Focus on participation and relationship;*
- *Focus on the everyday and narrative aspects of experience;*
- *Engage with but do not move to postmodernism.”*

(Stacey & Griffin 2005, p.28).

It must also be noted that, according to Williams (2005, p.60): “*Action Research ... takes a metaphysical and systemic view of the world.*” which is at variance with the stance of CRP.

The list of 7 AR principles set out above is shorter than those of Hult and Lennung (1980), Kemmis and McTaggart (1992), McKernan (1994), and Winter (2002)⁷, but which, nevertheless, capture the most essential features.

It is also important to draw a distinction here between the two camps of Reflective Practitioners and Critical Theorists, as outlined by Kemmis and McTaggart (1992), where the former tend to focus upon more individual and local attention to practices and capacities, and the latter are more entertained by broader issues and changes to cultures and communities.

At this point it is necessary to give attention to the parallel work of Etienne Wenger on Communities of Practice (Wenger 1998a, p.45) who described the issue thus:

“Being alive as human beings means we are constantly engaged in the pursuit of enterprises of all kindsAs we define these enterprises and engage in their pursuit together, we interact with each other and with the world accordingly. In other words we learn.

*Over time, this collective learning results in practices that reflect both the pursuit of our enterprises and the attendant social relations. These practices are thus the property of a kind of community created over time by the sustained pursuit of a shared enterprise. It makes sense, therefore, to call these kinds of communities: **communities of practice.**”*

⁷ Set out at length in Cohen, Manion & Morrison (2003, p. 228-230).

Thus a group of Action Researchers would constitute a community of practice, but a community of practice would not necessarily involve a group of Action Researchers.

Wenger's most important emphasis is upon the nature of the learning that establishes and sustains the practices of the community – which he describes as a *“kind of social theory of learning”* (Wenger 1998a, p.4), which importantly consist of theories of social structure, theories of identity, theories of practice and theories of situated experience. These are precisely those theories which are explored during what Eraut (2000) has called Deliberative Learning which is a form of reflective practice (Schön 1983). Again, as Altrichter (2005, p.13) recognised: *“The practices of action research obviously point to the fact that the professional community is an important place of professional learning and that professional learning is not just seen as an individual, but also a social process.”*

2.2.3. The benefits of Action Research

The main benefit of AR is considered to be its ability to bridge the divide between theory and practice more successfully than research methods that generate E-theories alone. It allows research to be conducted in the actual settings into which any research findings must be projected (Cohen, *et al.* 2003). As Rizvi (1989, p.227) recognised: *“change can only come about when the individuals who belong to a particular organization can see the point in changing.”*

However, in addition it is valued because of its ability to effect social change through: *“its potential for asking critical questions, moving beyond the initial questions and study site, and challenging power relations”* (Herr & Anderson 2005, p.65). McNiff refers to this as *“the link between action research and the creation of good order”* (McNiff & Whitehead 2003, p.14), and *“In a similar vein, Miller (1991) recounts how she and a group of teachers ... struggled with this very issue of expanding the focus of practitioner research so as to become ‘challengers’ of nonresponsive educational institutions.”* (Herr & Anderson 2005, p.24), which was an important reason for adopting it for this project.

A further dimension to the impact of Action Research is in regard to its ability to empower professionals. To affirm their experiences and their ability to contribute to the practice of their profession by validating the personal way in which we all know our world (Altrichter 2005). This gives confidence to the individual and a voice in the discourses that generate societies, institutions and communities (Habermas 1990).

2.2.4. The AR Cycle, Variations and the Daisy Model

Right from the beginning it is necessary to take note of McNiff's cautionary observation that: "*action research can become an abstract discipline, a set of procedures which can be applied in practice. It can then turn from being a living process to a linguistic abstraction.*" (McNiff & Whitehead 2003, p.15) as well as the admonition contained in the realization that: "*cult values may be functionalized as crassly utilitarian.*" (Stacey & Griffin 2005, p.35). Therefore, although there may be a body of practices and procedures recorded in the literature as the Action Research methodology, nevertheless, the core praxis is that the process must be one that is under the control and professional judgement of the researcher(s). The observance of the approach is contained within the spirit of its undertaking, not in the degree to which it adheres to specific details in its acts.

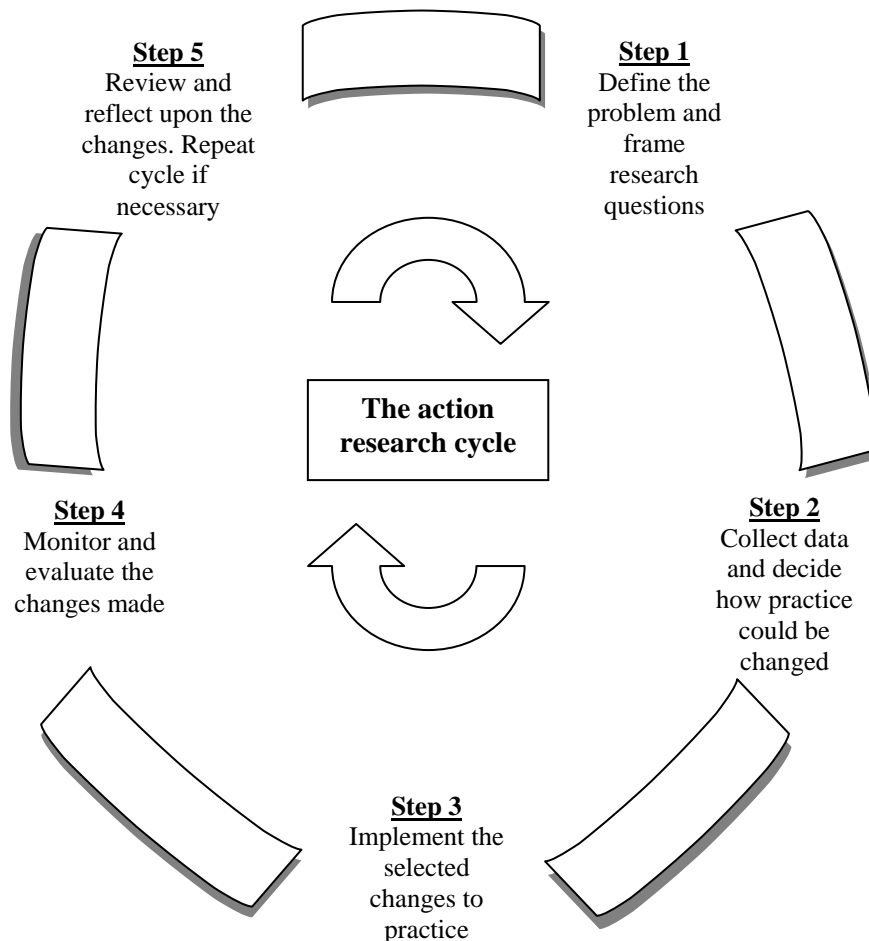


Figure 2.1 The Action Research cycle (modified after Paisey & Paisey 2005, p.2)

Whilst it is generally recognised that Action Research typically follows five stages as depicted in Fig. 2.1. again McNiff offers the following cautionary note: "*I like the notion of a systematic process of observe, describe, plan, act, reflect,*

evaluate, modify, but I do not see the process as sequential or necessarily rational." and goes on to seek: *"to communicate the idea of a reality which enfolds all its previous manifestations yet which is constantly unfolding into new versions of itself."* (McNiff & Whitehead 2003, p.56). This integrative, back and forth kind of process may look like a neat cycle, or a more complex spiral but which is almost certainly more like a *meristematic steele* (Taylor & Taylor 1977) or a *mandala* (Beer 1986) and whose true nature has been captured by Robertson (2000, p.307) when she said: *"conducting action research is not a tidy process."* Thus, the way that I conducted my Action Research was the way that I found that I could practically conduct it.

The next consideration of the practice of Action Research is the position of the facilitator⁸ (if there is one). As recounted above, in the early explorations of Action Research and within the traditions of organizational research the facilitator tended to be an external agent, albeit a fully engaged one.⁹ In the later and particularly in the educational Action Research traditions the facilitator is more often portrayed as an insider. In classical Freirian methodology (Aronowitz 1993) the oppressed cannot be emancipated by their oppressors but only by their own efforts. This suggests that any facilitator of processes of 'conscientização' should be insiders.

However, when we read the reports of, for example Kember (2002), or Ponte (2002), or Haggarty and Postlethwaite (2003), or Angelides, Evangelou and Leigh (2005), we find accounts of collaboration between outsiders (usually from universities) who have a commitment to teacher development and groups of teachers who individually or in communities undertake the Action Research. In some the facilitator is an 'expert' and has an interest in the subject of the group's Action Research (e.g. Nyhof-Young 2000) and in others they are experts in the process of Action Research and are able to catalyse the process (e.g. Ponte 2002).

In my view AR is not a process in which one who is already grown, and stands in a position of power, tells another how to do it. More realistically, it is a more egalitarian process where all are prepared to grow. Consequently, the figure of the external researcher or agent of change was absolutely incompatible with the purposes of my project. In the Action Research contemplated for UFRA a hybrid of both external and insider facilitation would be used. As a facilitator of the process I would be essentially external to the Action Research projects of the participating professors, and operating as a process facilitator. However, in relation to the

⁸ Table 3.1 in Herr & Anderson (2005, p.31) sets out the range and implications of positionality.

⁹ Though see also the comments of Coghlan & Holian (2007).

organization within which these projects would be undertaken I would be an insider working with my peers. As Herr and Anderson (2005, p.35) recognised there are advantages to be gained by being such an insider: *“The tacit knowledge that a practitioner acquires over months and years of working in a site raises ... logistical ... issues. Logistically, this tacit knowledge is an advantage in that it would have to be reproduced from scratch through ethnographic observations at a new site.”* Of course the exploration of my own actions as facilitator was itself to be substantially a piece of individual AR.¹⁰

At this point it is instructive to consider a model of facilitation of Action Research that was propounded by Melrose and Reid (2000), and which they called the Daisy Model (see Fig. 2.2). It is important not only because it reflects upon the process of *“spreading action research from one or more enthusiasts to others within an organisation”* (Melrose & Reid *op.cit.* p.152) the approach of that this project was fostering, but also because it recognises the importance of different types of group members – both of which points will be important in the interpretation of this piece of Action Research.

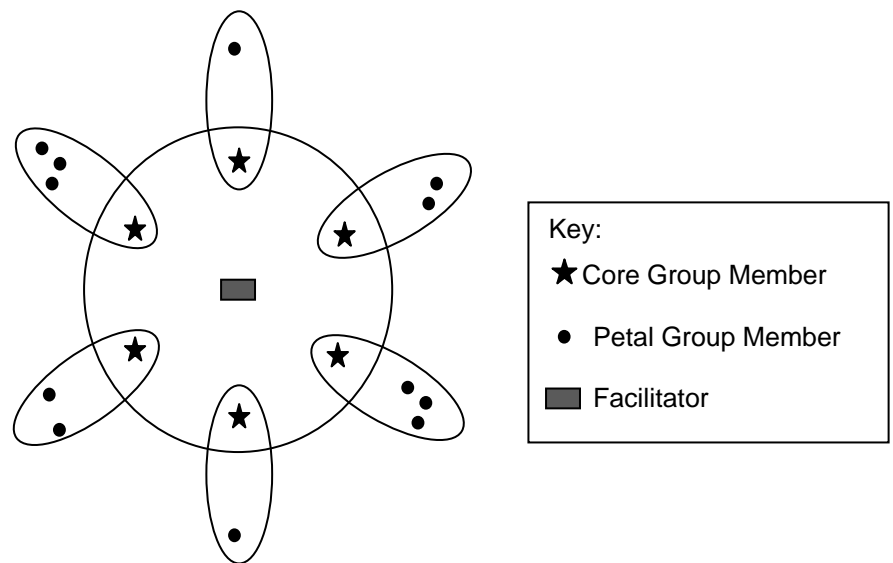


Figure 2.2: The Daisy Model (After Melrose & Reid 2000, p.152).

Reflecting on these issues I had to consider that the facilitation role is subject to a variety of dilemmas (Rapoport 1970) or ethical and technical problems as described by Elliott (1985). The purpose here is not to explore these dilemmas in depth (which can be found, for instance, in the work of Elliot (1985), Messner & Rauch (1995), Pedretti (1996) and Zuber-Skerritt (1996)), but rather to acknowledge the tensions that they inflict on the facilitation of an AR group in an approach that

¹⁰ Although as we will see in Chapters 5 and 6 it did not remain so throughout the study due to the power of the action research process.

was intended to emphasize practitioners' understanding and professional development (Zuber-Skerritt, 1996).

For example, a classical dilemma is represented by how far to steer or to accompany the process (Messner & Rauch, 1995). The main concern brought by this dilemma is in regard to the possibility of the creation of dependency in professional and emotional matters by an excessively directive facilitator. On the other hand, without fairly clear and precise guidelines the group would have no idea what they were supposed to do nor how they were supposed to do it and as a consequence lose confidence in the facilitators' competence.

Messner and Rauch (1995) also presented two dialectical sources of tension in facilitating Action Research, namely, critical friend versus distant observer and stimulus versus inhibitor. The first pairing is closely related with the dilemma presented in the previous paragraph where the critical friend acts to support the Action Research practitioner, whereas the distant observer only provides feedback to the group trying to cause them to reflect on the essence and purpose of the process. The second pairing refers to how the facilitator can motivate and keep the group of practitioners motivated by exerting some form of force on the practitioners which may vary between helpful support and suffocating presence.

Due to the characteristics of this project a fourth dilemma had also to be managed: Balancing the time spent between research activities and facilitation activities (Burchell & Dyson 2005) or as it was firstly described, the reflectivity versus activity dilemma (Knight, Wiseman & Smith 1992). From the standpoint of a facilitator, there would be a need to keep the momentum of the overall task going, and ensure that the impetus for the professional development and institutional strengthening would not be lost. Nevertheless, as the internal agent of change there would also be a need to give time to reflection and validation of the claim for knowledge that would compete for the time of the facilitator. In simple terms, this dilemma represents the pressure and the tension generated between the need for a valid, reliable research claim for knowledge of the situation which is the focus of the project, as against the need to act (facilitate). Or, as Herr and Anderson (2005 p.5) captured it: *"the concern with both action (improvement of practice, social change, and the like) and research (creating valid knowledge about practice) ... sets up a conflict between the rigour and the relevance of the research"*. A tension that will be explored in the next section.

Therefore, for the facilitator the central issue is how to keep alive the sense of the importance of the wider research enquiry whilst providing support for the group within their cycle of Action Research. As the agent of change (Action Researcher) a

full before and after comparison based on a detail research enquiry that involved seeking the views of those involved with the process is the central point and, unfortunately, tends to be beyond the resources of most Action Researchers (Burchell, 2000). Pedretti (1996) and Goodnough (2003), argue that the fundamental aspect of these dilemmas is the judgement capacity to keep the balance of these two dimensions acting through each of these points of tension and knowing when and how to proceed.

2.2.5. Draw backs of Action Research

The most regularly encountered criticism of Action Research is that it is unscientific. McNiff and Whitehead (2003, p.103) put it thus: *“Rational knowledge is validated using traditional forms of analysis. Traditional research has major aims to show cause-and-effect relationship between phenomena, and to judge outcomes in quantitative terms ... [but] research which is rooted in personal knowing is regarded as unscientific and lacking in rigour.”*

Also that it yields results that cannot be tested against the norms of internal and external validity¹¹. As Eden and Huxham (1999, p.272) recognised: *“Interventions of this kind will necessarily be ‘one-offs’, so action research has frequently been criticized for its lack of repeatability, and, hence, lack of rigour.”* Indeed Winter (2002, p.144) avers that AR: *“does not seek to create explicit generalisations, but rather, an account of a specific situation that gets sufficiently close to its underlying structure to enable others to see potential similarities with other situations.”*

Furthermore, Morgan (1983, p.15) argues that: *“the attempts in much social science debate to judge the utility of different research strategies in terms of universal criteria based on the importance of generalizability, predictability and control, explanation of variance, meaningful understanding or whatever are inevitably flawed”* and in particular: *“Different research perspectives make different kinds of knowledge claims, and the criteria as to what counts as significant knowledge vary from one to another.”* Or, as Herr and Anderson (2005, p.59) acknowledge: *“What is clear from these emerging approaches to criteria for the quality of action research is that they depart from current validity criteria for both quantitative and qualitative approaches to research. This is in part because of the unique concerns that action researchers have with workability, change, and empowerment and in part because they find the validity criteria of the social sciences too limited.”* In this regard these

¹¹ Internal validity refers to the trustworthiness of the inferences and external validity refers to the generalizability of those inferences.

comments also concur with the opinions expressed by Susman and Evered (1978) and Eden and Huxham (1999).

Within the naturalistic inquiry approach (Lincoln & Guba 1985) it is the combination of making sense of one's own experience and the explicitly reflexive nature of the narrative that provide the basis for claims of credibility. *"It is the careful characterization and conceptualization of experiences which amount to the theory which is carefully drawn out of action research."* (Eden & Huxham 1999, p. 277). Issues of generalisability of findings must always rest upon the caveat that with Action Research caution must be applied when making claims to wider applicability.

Both Kock (2004) and more recently Marshak and Heracleous (2005) portray a situation where the Action Research process poses unique threats to the acceptance of research findings and so to the organizational change process dependent upon them. This can potentially lead to a high proportion of failures in the conduct of Action Research in this field so that in the end it discourages potential adopters of Action Research as an approach for organizational change. Kock (2004) listed these threats as: Uncontrollability, Contingency and Subjectivity, that seem in many ways to be restatements of the validity arguments set out above by Huxham and Vangen (2003) and also reported for several other authors (Susman & Evered 1978; McTaggart 1991; Elden & Chisholm 1993; Gustavsen 1993 & 2003; Galliers 1995; Avison, Baskerville & Myers 2001).

The uncontrollability comes from the fact that a researcher's degree of control over the environment under study and the research subjects is always incomplete, even less so when the relationship between the researcher and clients has no history prior to the Action Research study. Contingency in this case means the difficulty to cope with the quantity of data generated and to extract research findings from them. The subjectivity represents a possible consequence of the deep, often emotional involvement and investment of the researcher with the collaborating individuals in Action Research studies, which can introduce personal biases into the conclusions.

Marshak and Heracleous (2005, pp.75), outlined in very simple terms that to avoid these threats the Action Researcher must *"document as much relevant data as possible, as accurately as possible given the circumstances, be reflective on what the data mean, apply a thoughtful analytical framework to the data, and arrive at some valid insights that contribute knowledge in some significant way"*. On the other hand, Kock (2004) is more careful and sets out a series of what he calls 'methodological antidotes' in the context of the adoption of Action Research for organizational change.

These methodological antidotes, namely: units of analysis, grounded theory and multiple iterations, are not new concepts. The first antidote is based on the use of the unit of analyses method (Creswell, 1994), which drives the cumulative collection and analyses of data around pre-specified units of analysis that are recognisable in different contexts. This counteracts the contingency threat by reducing the context-specificity of the research findings.

The grounded theory antidote is based on the use of adaptations of classical grounded theory methodology (Glaser & Strauss, 1967), and entails the use of a reliable research data coding method that makes data analysis from interviews, diaries and observations more objective, which counteracts the threat of the subjectivity of this kind of data.

The multiple iterations antidote is based on the repetition of the Action Research cycle shown in Fig. 2.1, which counteracts the uncontrollability threat by reducing the impact of events outside the sphere of control of the researcher by allowing the cumulative collection of research data over each repetition. Thereby strengthening the findings by building on evidence gathered from previous interactions in the same Action Research cycle.

Such considerations about the steps that need to be taken to ensure the credibility of AR in a business organizational setting have been set out in depth by Eden and Huxham (1999) as presented in Table 2.1 below. Many of them record the requirement to be true to the principles of Action Research, but others are particularly important in the matters of Uncontrollability (1 and 14), Contingency (4 and 9) and Subjectivity (5 and 10).

However, in other fields of AR such prescription has been largely eschewed. Other authors provide their thoughts about how to deal with the issue of placing a value upon Action Research findings. Herr and Anderson (2005, p.60) comment that: *“while bias and subjectivity are natural and acceptable in action research as long as they are critically examined rather than ignored, other mechanisms may need to be put in place to ensure that they do not have a distorting effect on outcomes. Lomax, Woodward, and Parker (1996) establish the importance of validation meetings in which ongoing findings are defended before one or more critical friends, who serve as a kind of devil’s advocate.”*

Lincoln and Guba (1985, p.295) insist that: *“When naïve realism is replaced by the assumption of multiple constructed realities, there is no ultimate benchmark to which one can turn for justification.”* and then aver that: *“to demonstrate ‘truth value,’ the naturalist must show that he or she has represented those multiple constructions*

adequately, that is that the reconstructions that have been arrived at via the inquiry are credible to the constructors of the original multiple realities.”

Table 2.1 Eden & Huxham’s Characteristics of Action Research¹²

-
- 1 Action research demands an integral involvement by the researcher in an intent to change the organization. This intent may not succeed – no change may take place as a result of the intervention – and the change may not be as intended.
 - 2 Action research must have some implications beyond those required for action or generation of knowledge in the domain of the project. It must be possible to envisage talking about the theories developed in relation to other situations. Thus it must be clear that the results could inform other contexts, at least in the sense of suggesting areas for consideration.
 - 3 As well as being usable in everyday life, action research demands valuing theory, with theory elaboration and development as an explicit concern of the research process.
 - 4 If the generality drawn out of the action research is to be expressed through the design of tools, techniques, models and method then this, alone, is not enough. The basis for their design must be explicit and shown to be related to the theories which inform the design and which, in turn, are supported or developed through action research.
 - 5 Action research will be concerned with a system of emergent theory, in which the theory develops from a synthesis of that which emerges from the data and that which emerges from the use in practice of the body of theory which informed the intervention and research intent.
 - 6 Theory building, as a result of action research, will be incremental, moving through a cycle of developing theory to action to reflection to developing theory, from the particular to the general in small steps.
 - 7 What is important for action research is not a (false) dichotomy between prescription and description, but a recognition that description will be prescription, even if implicitly so. Thus presenters of action research should be clear about what they expect the consumer to take from it and present it with a form and style appropriate to this aim.
 - 8 For high quality action research a high degree of systematic method and orderliness is required in reflecting about, and holding on to, the research data and the emergent theoretical outcomes of each episode or cycle of involvement in the organization.
 - 9 For action research, the processes of exploration of the data – rather than collection of the data – in the detecting of emergent theories and development of existing theories must either be replicable or, at least, capable of being explained to others.
 - 10 The full process of action research involves a series of interconnected cycles, where writing about research outcomes at the latter stages of an action research project is an important aspect of theory exploration and development, combining the processes of explicating pre-understanding and methodical reflection to explore and develop theory formally.
 - 11 Adhering to characteristics 1 to 10 is a necessary but not sufficient condition for the validity of action research.
 - 12 It is difficult to justify the use of action research when the same aims can be satisfied using approaches (such as controlled experimentation or surveys) that can demonstrate the link between data and outcomes more transparently. Thus in action research, the reflection and data collection process – and hence the emergent theories – are most valuably focused on the aspects that cannot be captured by other approaches.
 - 13 In action research, the opportunities for triangulation that do not offer themselves with other methods should be exploited fully and reported. They should be used as a dialectical device which powerfully facilitates the incremental development of theory.
 - 14 The history and context for the intervention must be taken as critical to the interpretation of the likely range of validity and applicability of the results of action research.
 - 15 Action research requires that the theory development which is of general value is disseminated in such a way as to be of interest to an audience wider than those integrally involved with the action and/or with the research.
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¹² Taken from page 285 of Eden & Huxham (1999).

They also proffer the important advice that to increase the probability that credible findings will be produced: “*There are three [necessary] activities: prolonged engagement, persistent observation, and triangulation.*” (Lincoln & Guba 1985, p.301) and “*The member check, whereby data, analytic categories, interpretations, and conclusions are tested with members of those stakeholding groups from whom the data were originally collected, is the most crucial technique for establishing credibility.*” (Lincoln & Guba op.cit., p.314).

McNiff and Whitehead (2003, p.107) detail the position of Richard Winter in the matter of validating Action Research thus: “[Action Research] *reports should demonstrate six principles.*

- *Offer a reflective critique in which the author shows that they have reflected on their work and generated new research questions.*
- *Offer a dialectical critique which subjects all ‘given’ phenomena to critique, recognising their inherent tendency to change.*
- *Be a collaborative resource in which people act and learn as participants.*
- *Accept risk as an inevitable aspect of creative practice.*
- *Demonstrate a plural structure which accommodates a multiplicity of viewpoints.*
- *Show the transformation and harmonious relationship between theory and practice.”*

It was possible to consider many of the above considerations in embarking upon this study but, as indicated in the discussion of the practicalities of Action Research, it was only through the process of undertaking the study that a personal and fuller understanding of these concepts emerged.

2.3. Organizational Studies

Having set out the issues related to the way that this study was to proceed via Action Research, it is now appropriate to turn to consideration of the arena in which the research was to be conducted. This arena is an organization of higher education, with emphasis upon the word organization. This in itself is a matter of some controversy through the simple question: “What is an organization?”

In the first instance many authors decline to define what they mean by organization (Senior 2002), and then proceed to use language that suggests that

they think of it as a 'thing', that is they have reified it¹³. For example, Perrow (1979, p.156) says that: "*Organizations are tools in the hands of their masters.*"¹⁴ and Fineman, Sims and Gabriel (2005, p.1) suggest that: "*When we look at organizations ... they seem solid, they seem permanent, they seem orderly. This is, after all, why we call them organizations.*"

Hosking (2006, p.55), on the other hand, after registering her exasperation at the division between those who talk about individuals and groups in organizational behaviour and those who refer to organizations as separate from individuals in organization theory, sought to explain the established concept organization by reference to four themes:

1. having an identity which conveys wholeness;
2. having boundaries providing a distinction between members and non-members;
3. having goals and values;
4. being separate from its environment to which it relates through some '*input-conversion-output relation.*'

She suggests that such suppositions may be seen as the embodiment of Modernist thinking.

Clearly, the abstract noun organization really seems to encompass something that is unfolding rather than static. According to Kowalski (1996, p.4): "*One language trap we have, certainly in English, is a process known as Nominalization. This is a form of distortion of language by which we turn a process (a verb) into an object (a noun).*"

As Bandler and Grinder (1975, p.33) put it: "[Nominalization's] effect is to convert the Deep Structure representation of a process into the Surface representation of an event." Indeed, Searle (1995, p.57) recognised that: "*What we think of as social objects, such as governments, money, and universities, are in fact just placeholders for patterns of activities.*"

Even when there is an acknowledgement of process the language still suggests that there is an 'it' that transcends the human basis of organization, for example Tannenbaum (1968, p.3) suggests that: "*Organization implies control. A social organization is an ordered arrangement of individual human interactions. Control processes help circumscribe idiosyncratic behaviours and keep them*

¹³ "*Treating abstract collective entities which are the creations of human activities, as the active agencies in social relations and in consequence, devaluing the part played by human actors.*" Hyman, 1975, p.13)

¹⁴ From the Greek word *organon* meaning tool.

conformant to the rational plan of the organization. Organizations require a certain amount of conformity as well as the integration of diverse activities.”

More recently, and in stark contrast, Stacey and Griffin (2005, p.19) identify an alternative perspective as follows: *“we think of an organization as an evolving pattern of interaction between people that emerges in the local interaction of those people, with its fundamental aspects of communication, power and ideology, and evaluative choice.”* and which is grounded in post-modern perspectives and critical theory, and which led them to the elaboration of their complex responsive processes approach.

Consequently, before we proceed further, it is necessary to explore understanding and implications for organizational theory that stem from the perspectives of Modernism, Postmodernism, Critical theory and Critical realism.

2.3.1. Modernism, Postmodernism and Critical theory

We human beings are challenged in the study of any subject to consider what our basic beliefs upon two questions are; what is the nature of reality? (ontology), and how do we know that we know? (epistemology) (Hatch & Cunliffe, 2006; Hosking & McNamee 2006). In the former we have three choices – realism, where reality is objective; relativism, where everything takes place in the mind and reality as such is of doubtful nature; and idealism, where our understanding of reality is determined by our mental frameworks. For the latter there are two main choices – empiricism (or positivism), where what we can know is a result of direct experiences of the world; and rationalism (or interpretivism), where the basis of our knowledge is the ability of the mind to perceive it.¹⁵

Modernism is frequently traced back to the European Enlightenment and the perception of what has been called “the grand narrative” (Lyotard 1984) where writers saw humanity as having a manifest destiny encompassed in the concept of progress. Cooper and Burrell (1988, p.94) suggest that modernism began at: *“that moment when man invented himself; when he no longer saw himself as a reflection of God and Nature”* and the key element is the notion of reason through the application of science and technology. In all of this there is an acceptance of the existence of an external, essentially knowable, universe that is the basis of realism¹⁶ and positivism¹⁷ and which gave us the approach to the management of our affairs that has been described as ‘instrumental rationality’ (Hassard & Parker 1993).

¹⁵ For a fuller explanation of epistemology see Hatch & Cunliffe (2006, p.12-13).

¹⁶ Manifested in works of art like Constable’s *The Hay-Wain*

¹⁷ For example the machine metaphor of Newtonian physics.

In contrast, an era of very different thinking was exemplified by Darwin's evolution by natural selection, Einstein's theory of relativity, Gödel's incompleteness theorem, and Heisenberg's uncertainty principle, on the one hand, and Marx's political economy, Baudrillard's views of the media and Lyotard's literary theory, on the other, that caused a rejection of the modernist agenda and ushered in an era that has come to be referred to as Postmodernism. As Hassard and Parker (1993) recognise, postmodernism has been presented in the literature in relation to a point in time (epoch) that has superseded modernism, and alternatively as a different epistemological position where: "*Traditional theory construction is founded on belief in the factual nature of a knowable universe.*" (p.18) as opposed to the view that theory-building is: "*a form of intellectual imperialism, and one which fails to acknowledge the basically uncontrollable nature of meaning?*" (p.19). Bashkar (2002, p.207) characterized postmodernists as people who essentially: "*do not like making ontological commitments, they do not believe that you can say anything about the real world and certainly nothing about the deep structures of the real world, maybe platitudes is all.*"

More particularly, as Gergen and Thatcher (2006, p.41) emphasised: "*language for the postmodernist is not a reflection of the world, but is world-constituting. Language does not describe action, but is itself a form of action.*" Importantly, this focus on the ability of human beings to fashion their social structures through processes of interaction that are political in nature (Berger & Luckmann 1966) brought about a more considered evaluation that is referred to as 'critical theory'. The phrase itself was taken up by a group of philosophers based in the Institute for Social Research, now known as the Frankfurt School (Phillips 2000). Critical theory stands juxtaposed to 'traditional theory' in that it is inherently self aware and directed toward critiquing and changing society as a whole rather than simply understanding or explaining it. As Finlayson (2005, p.3) puts it: "*A critical theory reflected on the social context that gave rise to it, on its own function within that society, and on the purposes and interests of its practitioners, and so forth, and such reflections were built into the theory.*"

The premises of Critical theory, as outlined by Crowther and Green (2004, p.119), can be summarised as follows:

- Science and positivism embody value judgements
- The assertion of value-freedom in the scientific method is so deep-seated that it precludes any criticism
- Only radical change to theory and practice can rectify society's ills

- No doctrine should be above criticism
- Theory should be free of social and economic forces – but being a product of social processes theory should be reflexively aware of its antecedents.

A more recent proponent of Critical Theory was Jurgen Habermas who made many contributions to the field (Finlayson 2005). Most notable from our point of view is his Theory of Communicative Action in which he distinguishes between those actions that are taken by an individual agent to bring about a desired end (instrumental actions) and getting others to perform actions towards your desired ends (strategic actions), on the one hand, and communicative action, on the other, where the 'ends' emerge from the integration of action with consensus forming, rational-critical speech-acts that are dialogic. This latter implies that no power can be exerted in communicative action other than the rationality of the arguments presented. Indeed, the values and practises of Action Research (as discussed in section 2.2) can be very much located in the notion of communicative action.

Habermas (1990) vigorously presents the project of the construction of a democratic, rational and altogether more human society in terms of institutionalizing the transforming power of rational communication, although the methodology for promoting such communication was left to others to resolve (Finlayson 2005). His work also finds echoes in and resonances with the critical pedagogy of Paulo Freire (Freire 1971b) which is founded on notions of social action through communicative acts.

The role of communication, and in particular language, came to the fore in both postmodernism and critical theory with the concept of 'discourse'. Burr (1995, p.48) explains that: "*A discourse refers to a set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events.*" Discourse is recursive in that it is both produced by social interaction and itself circumscribes the very social and linguistic interaction that produces it. The precise nature of discourse is well captured by Laclau and Mouffe (1985, p.108) as follows:

"An earthquake or the falling of a brick is an event that certainly exists, in the sense that it occurs here and now, independently of my will. But whether their specificity as objects is constructed in terms of 'natural phenomena' or expressions of 'the wrath of God' depends on the structuring of a discursive field."

Hardy and Phillips (2002, p.2) account for it thus: "*without discourse, there is no social reality, and without understanding discourse, we cannot understand social reality, our experiences, or ourselves.*"

Perhaps the most important proponent of discourse was Michel Foucault (Mills 2003) who placed great emphasis upon the power relationships contained within discursive acts. Based upon Foucault's ideas, Kowalski (2006, p.174) explains the concept of 'participation' within accounts of management practice thus:

"This [participatory planning] is presented as a process of discourse ... and draws upon aspects of power in regard to who is authorised to speak (rarefaction), what can be spoken about (power/knowledge) and who speaks the truth (experts) that involves a variety of parties – naming their world."

We will return to discourse theory when we discuss the concept of 'Power' later in this section.

Finally, we need to make mention of the ideas of Roy Bashkar, that are presented as the theory of Critical Realism. In his own words (Bashkar 2002, p.12): *"what I argued for was that ontological realism was quite compatible with epistemological relativism, pluralism, diversity and indeed fallibilism."* Thus this theory, at its most simple, suggests that there must be a real thing (referent) out there about which we speak (signifier) in order to establish some shared meaning (signified) (Chandler 2002), but what we make of it in our discourse will be predisposed by our own patterning's and subjectivity about which we must be critical.

These unfolding patterns of thinking about the nature of the world have had their counterparts in the theory of organizations, and in the ways that academics have sought to make sense of those enterprises that embody our collective purposes. Nevertheless, as we explore the expansion of thinking about organization we should bear in mind the observation made by Gergen and Thatchenkery (2006, p.39) that: *"The vast share of contemporary theory and practice in organizational science is still conducted within a modernist framework."*

2.3.2. Schools of Organization Theory

Organization theory really began from the early nineteen hundreds with what has been described as the classical school. This focused upon increasing efficiency, scientific management (Mullins 2007) and structural approaches to understanding organizations. One of the main contributions in this school was Max Weber's concept of the ideal bureaucracy, characterised by Hatch and Cunliffe (2006, p.103) as follows:

- *A fixed division of labour*
- *A clearly defined hierarchy of offices, each with its own sphere of competence*

- *Candidates for offices are selected on the basis of technical qualifications and are appointed rather than elected*
- *Officials are remunerated by fixed salaries paid in money*
- *The office is the primary occupation of the office holder and constitutes a career*
- *Promotion is granted according to seniority or achievement and is dependent upon the judgment of superiors*
- *Official work is to be separated from ownership of the means of administration*
- *A set of general rules governing the performance of offices; strict discipline and control of the office is expected.*

In contrast, the human relations approach to organization theory emerged from the work of Elton Mayo who, in seeking to research the ideas of Frederick Taylor, came to de-emphasize 'objective' or 'scientific' factors and brought out the importance of the way that emotional factors were managed (Crowther & Green 2004). This challenge was recorded by Argyris (1957, p.59) as follows:

*"A number of difficulties arise with [the classical] assumptions when properties of human personality are recalled. First, the human personality we have seen is **always** attempting to actualize its **unique organization** of parts resulting from a continuous, emotionally laden ego-involving process of growth. It is difficult, if not impossible, to assume that this process can be choked off."*

The later development of the motivational theories of Abraham Maslow, Douglas McGregor and Fredrick Herzberg form the core of the Neo-human relations approach (Huczynski & Buchanan 2007; Mullins 2007), and those theories will be considered later in this chapter. Suffice it to say that there was a general reinforcement of the need to see organizations as essentially social entities that provide theatres within which people can interact to meet their psychological and sociological needs.

The discredit into which the classical organization theory had fallen (Waelchli 1989) led, in many ways, to the rise of the systems approach to organization theory. Founded upon the work of Norbert Wiener (1948) on cybernetics, William Ross Ashby (1956) with his 'Law of Requisite Variety', Ludwig von Bertalanffy (1968) on General Systems Theory, and Stafford Beer (1979) with the Viable Systems Model, this approach sought to deal with organization in terms of functional, inter-dependent sub-units interacting with its external environment. The nature of interactions between these sub-units was captured in the concept of 'Loose-coupling' by Karl

Weick (1979) who also emphasised the process of 'meaning making' as a major theme in organizational theory. A later adjunct to the systems approach is known as the contingency approach, which suggests that the type of organizational structures and processes necessarily vary according to the task presented to them and the context in which they occur (Vecchio 2000; Lynch 2006).

On the humanist side of organizational theory the impact of postmodernism was manifested in the emergence of Social Action theory (Goldthorpe, Lockwood, Bechhofer & Platt 1968) which sought to place the individual and their perspectives more firmly in the frame of theory. This has been further developed into considerations of organizational culture (Schein 1988) that looks at the formal and informal organization, the cultural levels manifested through artefacts, espoused values and underlying assumptions (Schein 2004), and the five dimensions of culture (Hofstede 1980). In parallel there have been considerations of organizational learning (Argyris 1982; Argyris & Schon 1996) and the concept of Action Science (see section 2.2), and communities of practice (Wenger 1998a) emphasising the social construction of learning.

The most recent and perhaps radical manifestation of this approach can be found in the writings of Ralph Stacey and his co-workers on complex responsive processes, in which *"organizations are viewed as patterns of interaction between people that are iterated as the present."* (Stacey & Griffin 2005, p.3) and which, most importantly, involves: *"one [moving] from thinking in terms of a spatial metaphor, as one does when one thinks that individuals interact to produce a system outside them at a higher level, to a temporal process way of thinking, where the temporal processes are those of human relating."* (Stacey & Griffin op.cit.)

Finally, it is necessary to acknowledge the attempt to synthesize many of these ideas into three models of organization by Greiner and Schein (1989) as:

- Rational/Bureaucratic linked into theories of structures and systems.
- Collegial/Consensus emphasising interpersonal and small group behaviour and team work.
- Pluralistic/Political relating to the interactions of different interest groups mediated by power.

It is within this latter model that one can see emerging the concept of the anarchic organization (Cohen, March & Olsen 1972; Tyler 1973) that is a direct contrast to the bureaucratic model, particularly because of the absence of a common goal. The resulting ambiguity provides the opportunity for interest groups to arise and to pursue their own goals, any one of which may be inimical to the others. This brings us on to consider the issue of Power in organizations.

2.3.3. Power

As Dahl (1957, p.201) recognised: “*The concept of power is as ancient and ubiquitous as any that social theory can boast.*” - but what is it? The usual definition has been captured by Greiner and Schein (1989, p.13) as follows: “*Power is the capacity to influence another person or group to accept one’s own ideas or plans. In essence, power enables you to get others to do what you want them to do.*”

Foucault has challenged this by suggesting that power can only exist where there is resistance (Mills 2003). This chimes well with the position of Weber (1947) in emphasizing the vital role of legitimacy in the exercise of power as authority. Since the exercise of power has cost implications the utilization of authority as a means of overcoming resistance cannot be over emphasised. Indeed, its most subtle form of manipulation is in setting the boundaries of discourse through what Gramsci (1971) refers to as hegemony, which is the uncritical acceptance of assertions about what constitutes truth made by or on behalf of social elites.

Foucault explained the relationship between power and knowledge through three loci of participation in discourse that are subject to the control of the more powerful operating against the interest of the less (see Table 2.2).

Table 2.2 Practices of exclusion in the discourse of planning (After Kowalski 2006).

<i>Who can speak – who gains access to voicing their perceptions?</i>	This means that limitations placed upon who can take part (Rarefaction) and how various groups are to be represented are set both overtly, by the use of invitations, permissions and recognitions, and covertly, by the restricted availability of information and by the resource implications of taking part (attendance and/or opportunity costs)
<i>What is to be spoken about – how is the agenda set? What is not to be considered?</i>	It means that both the opportunity to influence the process through which the subject matter to be considered is decided and the opportunity to influence what subject matter will be considered may be restricted before discussions take place (Power/Knowledge), and thereby place some issues beyond the scope of particular discourse (Lukes, 1974)
<i>Whose opinions count most as the ‘truth’?</i>	It also means that when discussions take place, the opinions of some individuals, institutions or organizations are considered to be more ‘truthful’ than others, e.g., experts vs. primary stakeholders, or that, for some groups, their own perceptions must give way to the hegemony of those more powerful (Gramsci, 1971)

This interaction between discourse and power is captured in Fig. 2.3 below. From the standpoint of this study the most important implication of this interaction is

its inference that change introduced at any point has the potential to impact upon power relations.

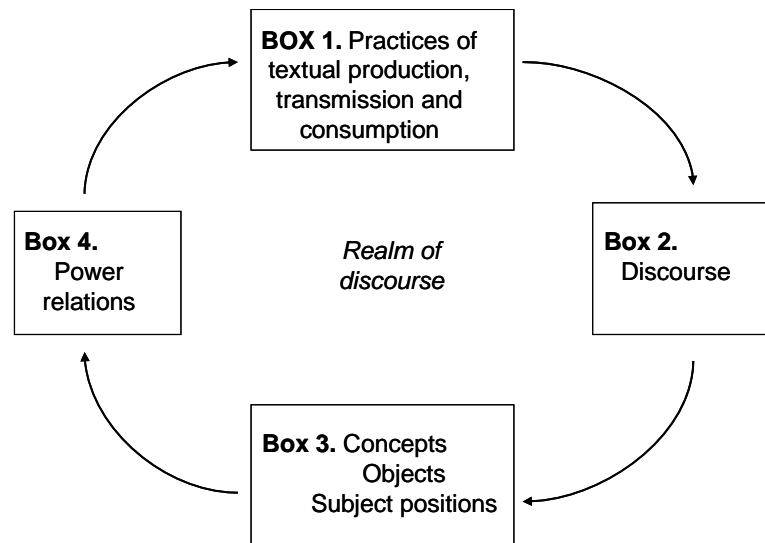


Figure 2.3: The Relationship between discourse and power (After Hardy & Phillips 2002).

This reflects the views of Karl Weick on the nature of organizations and the prospects for change, which Nonaka and Takeuchi (1995, p.40) explained thus:

“[Weick] argued that shared information and meaning become structured in organizations as well as in behaviours. It is through the development of shared meaning and understanding that the cycles of structured behaviours themselves become sensible and meaningful.”

Of course the exercise of power is seen as having its' main point of action in controlling or limiting the actions of others – this may be referred to as 'Power-over' (For a discussion of relational power see Rowlands 1998). Clegg (1989, p.4) recognised the constitutive conception of power as:

“a locus of will, as a supreme agency to which other wills would bend, as prohibitory; the classic conception of power as zero-sum; in short, power as negation of the power of others.”

However, as Long and Villareal (1994, p.50) commented:

“Even those categorized as ‘oppressed’ are not utterly passive victims, and may become involved in active resistance. Likewise, the ‘powerful’ are not in complete control of the stage and the extent to which their power is forged by the so-called ‘powerless’ should not be underestimated.”

Or again, as Pfeffer (1981, p.5) observed: *“it is interesting that in spite of the considerable degree of power possessed by lower level employees, these employees seldom attempt to exercise their power or to resist the instructions of their managers.”*

On the other hand, Parsons (1967) and Foucault (1977) recognised a positive aspect to power which we may call 'Power-to'. Power-to is characterised by being the energy that people can apply to their actions to achieve their goals. Although these actions themselves may have a positive or negative impact, the Power-to element is essentially positive-sum in nature (Clegg 1989). That is, the amount of Power-to that an individual possesses has no limiting effect upon the Power-to of any other individual. Motivation, determination, creativity and enthusiasm are essentially limitless and, if anything, are actually contagious. As such Power-to is a general good that enables people to achieve their goals (see Uphoff 1996).

Since the very concept of Power-over implies its' operation against the Power-to of others, people's creativity, motivation, determination and enthusiasm are often in inverse proportion to the amount of Power-over that others hold. In as much as these qualities are required within an organization (Kanter 1984) then the decentralization of Power-over becomes important.

The shift in the balances of power that participation of all kinds can bring about is often referred to as Empowerment. Mullins (2007, p.702) defines it thus: *"Empowerment is generally explained in terms of allowing employees greater freedom, autonomy and self-control over their work, and responsibility for decision making."* Del Val and Lloyd (2003, p.102) provide a more extensive vision: *"empowerment will be defined as the involvement of employees in the decision-making process ... , inviting the members of the organization to think strategically and to be personally responsible for the quality of their tasks ... , animating, favouring and rewarding employees for behaving always in a way they consider more suitable to satisfy customers ... and to improve the organisation's functioning."*

2.4. The Management of Change

Over the last 35 years the management of change has shifted from a stability-oriented framework, where the changes were seen as the intended result of doing a good thing more extensively and efficiently, to a change centred perspective, which creates more flexible organizations more adaptable to their environments (Quattrone & Hopper 2001).

From a deterministic point of view, all change processes seem inevitably to start with the recognition of the need for change before any action has been taken so that the problems of introducing change can be managed (Goodstein & Warner Burke 1997; Armstrong 2003). These problems include resistance to change (Armenakis & Bedeian 1999), low stability, high levels of stress (Argyris 1990), misdirected energy (Burns & Scapen 2000), conflict and loss of momentum (Vieira & Vieira 2004). Thus it is crucial to do whatever is necessary to anticipate the possible

reactions and impediments to the introduction of change because despite the trend to assume that the whole process is logical and straightforward, it is not like that at all (Armstrong 2003).

In broad terms, as pointed out by Blackburn and Holland (1998), people resist change simply due to the fact that it is seen as a threat to a familiar pattern of behaviour which the agent of change tends to assume is worth changing and that the people involved are irrational in not responding in the way they should. Nevertheless, the resistance is entirely rational in terms of the individual's best interest. It appears less so simply because the interest of the organization and the individual are not necessarily the same (Carnall 2003).

This wide view of the resistance to the change process is broken down by Armstrong (2003) into nine main reasons, namely: The shock of the new; Economic fears; Inconvenience; Uncertainty; Symbolic fears; Threat to interpersonal relationships; Threat to status; and Competence fears. In addition to this, within the Brazilian public university context, Trigueiro (1999), made his point clearly saying that all programs of change have created their locus of resistance by not paying attention to the corporatism behaviour of professors by which they protect themselves against an external enemy represented by the change process, and especially when this process is designed, presented or conducted by an outside agent of change.

I could also use the words of Machiavelli, who explained brilliantly the reactions to the process of change in his famous book 'The Prince':

"The innovator has for enemies all those who have done well under the older conditions and indifferent defenders among those who may do well under the new" (Machiavelli, The Prince)

As described by Pettigrew and Whipp (1991), the organizational impact of a change programme is more likely to happen when the actions adopted involve a concern with the organizational transformation as a long term process continuing after the operational (individual) change had taken place (Armstrong 2003). Indeed, as Beer, Eisenstat and Spector (1993) highlighted, programmatic change prescribed by external experts invariably fails because only the people most closely involved can accurately diagnose the problems and implement the actions required. In this regard O'Brien (2002, p.445) emphasised that: *"Employee participation .. is perhaps the most powerful lever management can use to gain acceptance of change."*

Or again, as Marris (1975, p. 166) averred:

" When those who have power to manipulate changes act as if they only have to explain, and when their explanations are not at once accepted, shrug off opposition as ignorance or prejudice, they express

a profound contempt for the meaning of lives other than their own. For the reformers have already assimilated these changes to their purposes, and worked out a reformulation which makes sense to them, perhaps through months or years of analysis and debate. If they deny others the chance to do the same, they treat them as puppets dangling by threads of their own conceptions.”

The answer to change management has often been presented in various models of the change process. As Goodstein and Warner Burke (1997, p.162) recognised: “Models of change and methods of change are quite similar in concept and often overlap – so much so that it is not always clear which one is being discussed.”

2.4.1. Models of Change

Lewin (1947; 1952), developed a theory of social change that defined social institutions as operating within a balance of forces (force fields), some driving and the others restraining change. According to Lewin’s model, change would happen when the balance of these forces is disturbed in a process that undergoes three separate stages: Unfreezing, Moving and Refreezing (Schein 1995). After the unbalance of the force fields during the unfreezing stage, change would continue until a new balance between driving and restraining forces is achieved and then the refreezing stage would represent the institutionalisation of the new behavioural pattern (see Fig. 2.4).

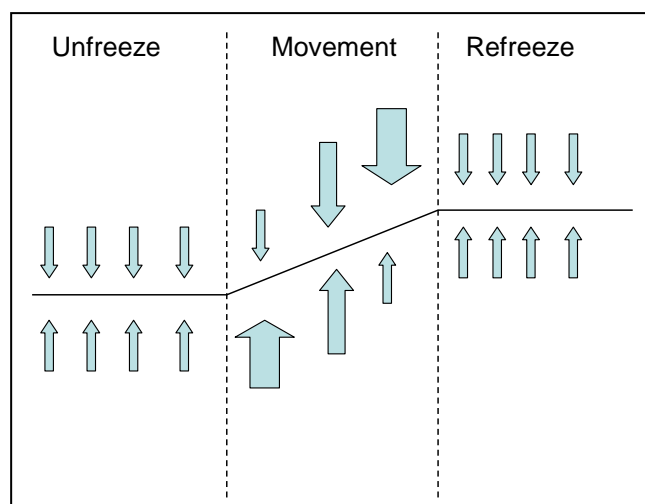


Figure 2.4: Lewin’s 3-stage Model of Organizational Change (After Hatch & Cunliffe 2006, p.309).

Lewin’s model of change can be considered as the starting point from which other authors have added concepts and process. For example, Beckhard (1969)

argued that a change programme should incorporate processes such as: Setting goals; diagnosing the present; defining activities; and developing strategies and action plans for this transition. Also following this line, Thurley (1979), described the process of managing change in five different ways: Directive, Bargaining, Emotional, Analytical and Action-based. As the names suggest, the process of change could vary from the imposition of change, as perceived by professors in Brazil (Mendes, 1997), passing through the negotiation and the dialectical process of using emotion and analysis in gathering commitment and/or participation, to a recognition that some problems exist and the identification of possible solutions that generates at least a framework within which solutions can be discovered.

During the nineteen eighties, authors such as, Nadler and Tushman (1980), Quinn (1980), Katz, Kahn, and Adams, (1982), Morgan (1983), and Bandura (1986) brought about new guideline procedures that involved: a) to create awareness and commitment; b) to motivate people to make conscious choices about their behaviours; c) to broaden the political support and shape the political dynamics of change to avoid the power centre from blocking it; and finally d) to manage coalitions by empowering the champions to build stability so that, the more confident they are, the more likely they are to try to change.

Then Gabor (1990, p. 15), refers to the process of change as a process dependent on senior managers where: *"all significant long-lasting quality improvements must emanate from top management's commitment to the improvement, as well as their understanding of the means by which systematic change is to be achieved."*

Also in the early nineties, Kanter, Stein and Jick (1992, p.126), posed what they called: The three big model of change. In their views *"the Lewin's model of change was linear and static and tended to over simplify a highly complex process"*. The three big model, instead, *"addressed the process of change as ubiquitous and multidirectional and in contrast to Lewin's model there is no single agent of change"* because in their views *"change is embedded in the process that is sustained by multiple forces (macroevolutionary; microevolutionary and political) at different levels (environment, organisation and individual)"*, respectively.

In addition, Styrhe (2002) emphasises the importance of contemporaneous environmental change running alongside and validating (or invalidating) the organizational changes. However, Maturana and Varela (1980), although following the same path, advocated that the environment cannot influence systems because anything that influences a system is by definition a part of the system. That is, a system has to change from inside. This is at variance with the Viable System Model

of Beer (1989) since in the VSM the sole role of sub-system 4 is to manage the interface with the external environment.

Another influential linear model of change that shares Lewin's model among its' antecedents is that proposed by Kotter (1996), which extends the 3 stages into eight, namely:

- i. Establishing a sense of urgency.
- ii. Creating a guiding coalition.
- iii. Developing a vision and strategy.
- iv. Communicating these.
- v. Empowering employees for broad-based action.
- vi. Generating early successes.
- vii. Consolidating progress and producing more change.
- viii. Anchoring new changes in the culture.

Despite being formulated over fifty years ago Lewin's model retains its' utility and currency as a reference point in debating organizational development (Goodstein & Burke 1991; Chapman 2002; Styhre 2002; Carnall 2003). Importantly, Fullan (2000) placed it in an educational context and relabelled the 3-stages as (a) Mobilization, b) Implementation, and c) Continuation, which has the effect of softening the concepts, particularly keeping the final phase more fluid than in the original, and I have used this form of the model as the basis for both acting in and analysing this study.

However, there is a second perspective on change that is non-linear that needs to be born in mind. As Kirkbride (1993, p.50) argued: "*In a post-modern world change simply is. It cannot be 'managed' or even 'created. At best it can be observed and diverted.*" According to the post-modernist perspective, through deconstructive analyses assumptions about the process of change are revealed and overturned. The overturning of these assumptions opens a space for previous unconsidered alternatives and in this way resembles Lewin's unfreezing stage of organizational change. Nevertheless, in the post-modern approach of organizational change, as suggested by Tripp (2003, p.482): "*the alternatives are left open to a continuous process of interpretation and new adjustments*", whereas according to the Lewin's model, the whole process of change has to be reassessed during the refreezing stage.

Therefore, the post-modern approach advocates the use of knowledge to emancipate rather than dominate as occurs when top managers within a total quality management programme use the rhetoric of participation to persuade workers to join

up, but then subvert the process by imposing their own desires. Styrhe (2002, p.345) captured it thus:

“Lewin’s model of organization change is widely recognized and it serves as a powerful metaphor for organization change, but because of its simplistic assumptions on the organization’s environment it is a weak model for understanding how organization change is proceeding in real life activities.”

So, is there a middle way, where ideas of post-modernism meet those of organizational development? The answer possibly lies in the approaches described as Process Consultation (Schein 1969), Action Science (Argyris 1999) and Action Research (see Section 2.2). The common factor in these approaches is the facilitative behaviour of the change agent, whose expertise lies not in the technical or managerial context of the organization, but in the processes that enable those engaged in the day to day work of the organization to confront the issues and learn from them. As Oakland (1999, p.10) recognised: *“Attempting to control performance through systems, procedures or techniques **external** to the individual is not an effective approach since it relies on controlling others; individuals should be responsible for their own actions.”* Indeed, as Ellerman (2005, p.45) noted: *“If it is a cognitive matter of seeing the light, then the best approach would be to support a scheme of parallel experiments by the doers so they could find out for themselves what works.”*

For the purposes of this study the interpretation of this group of change management processes is best dealt with under what Ellerman (2005) has termed the indirect approach. Hart (1941, p.x) gave it emphasis thus: *“This idea of the indirect approach is closely related to all problems of the influence of mind upon mind – the most influential factor in human history.”* And Ellerman (2005) provides extensive arguments to show that only Indirect Approaches are capable of bringing about changes at the level of attitude. Most notable are his two equations, as follows:

Action = Behaviour + Motive (1)

Belief = Proposition + Grounds for belief(2)

Where the second factor in each case is not subject to being ‘purchased’ by an external agent.

In this regard, Lindblom (1990, p.216) recognised that:

“As for ends – usually standing volitions – the self-guiding model neither takes any as given, as in some versions of the scientific model, nor regards them as discoverable. For no one can dis- or uncover a volition; and instead people form, choose, decide upon, or will. This they do

through a mixture of empirical, prudential, aesthetic, and moral probes. Among more numerous lesser questions, probing pursues great existential and moral questions, working answers to which join with the unexpected to shape people and society.”

Importantly, Ellerman (2005, p.11) stresses that: “*The indirect approach to helping is not to supply motivation to the doers but to find and start with the existing own motivation of the doers and supply help on that basis.*” and therefore it is necessary for us to consider at this point the nature of motivation.

2.4.2. Motivation

The starting point for any review of motivation is almost certainly Abraham Maslow’s hierarchy of the prepotency of human needs. In setting out his ideas, Maslow (1968) advanced a number of important propositions about human behaviour and motivation as follows:

- Humans are ‘wanting’ creatures, and critically they want more. Even though specific needs can become satisfied, needs in general do not.
- A satisfied need does not act as a motivator, only unsatisfied needs motivate behaviour.
- Human needs can be arranged in a series of levels - into a hierarchy of their importance in demanding attention (hence the idea of prepotency). As soon as needs on the lower levels of the pyramid are fulfilled, those on the next level will emerge as motivators and demand satisfaction (see Fig. 2.5 & Box 2.1).

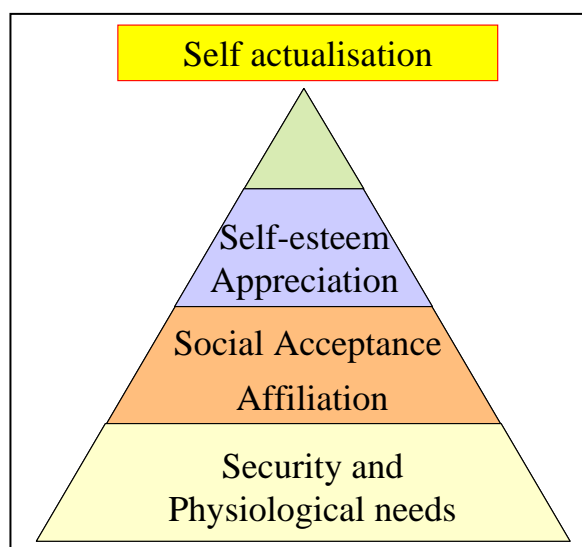


Figure 2.5: Maslow’s hierarchy of the prepotency of needs.

However, it is necessary to remember that higher order needs can be motivators for forgoing lower level needs (eg. Ascetics who reject bodily needs for spiritual development).

Box 2.1. Maslow's hierarchy the prepotency of needs (Maslow 1968):

- 1 **Physiological needs.** The lowest level needs are physiological ones. These are needs that must be satisfied to maintain life and until these are satisfied they act as the primary motivators, taking precedence over any other needs. Thus a starving person will not normally be motivated by desires for self-fulfilment, but by the need to obtain food (but see hunger-strikers).
- 2 **Security needs.** The next level of the hierarchy is that of security needs, which come into operation as effective motivators only after a person's physiological needs have been reasonably satisfied. These take the form of the desire for protection from physical danger, economic security, and an orderly and predictable world, etc. (clothes, shoes, housing, warmth or air-conditioning)
- 3 **Social needs.** The third level is that of social needs. Once again, these only become effective motivators as needs for safety become reasonably satisfied. They include the need to belong to a group, to be accepted, to give and receive friendship and affection.
- 4 **Esteem needs.** Esteem needs form the next level of the pyramid. These include both the need for self-esteem and for the esteem of others. Self-esteem includes aspects such as self-confidence, self-respect, knowledge, etc. The esteem of others includes the need for their respect, recognition, appreciation, and for status in others' eyes. Unlike the lower levels of needs, esteem needs are rarely completely satisfied, and tend to be insatiable.
- 5 **Self-actualisation needs.** At the pinnacle of Maslow's needs' hierarchy is the need for self-actualisation. This is the individual's need for realising their own potential for self-fulfilment and continued self-development; for being creative in the broadest sense of the term. The specific form of these needs will obviously vary from one individual to another. Examples are professionalism, job satisfaction, education.

It is important to note that:

- Levels in the hierarchy are not rigidly fixed, but tend to overlap.
- A person's level may change from day to day, hour to hour.
- The same need will not lead to the same response in all individuals.
- Social needs act as powerful motivators of human behaviour but may be regarded as threats by an organization's management in some instances.

- The competitive desire to excel is an almost universal trait. This is a major esteem need, and if properly harnessed can produce extremely high organization performance.

Fredrick Herzberg (1966) has provided an alternative model (often referred to as the 'two factor theory of motivation') of the ways in which factors such as salary, achievement, and working conditions affect people's motivation to work. He asked 200 engineers and accountants about the factors which improved or reduced their job satisfaction, from which two distinct groups of factors were identified:

Table 2.3. Herzberg's two factors of motivation

Motivator factors (job content)	Hygiene factors (organizational content)
Achievement	Pay
Advancement	company policy
Growth	supervisory style
Recognition	Status
Responsibility	security
the work itself	working conditions

(after Huczynski & Buchanan 2007, p.258)

'Hygiene' factors were those factors that created a favourable environment for motivating people and prevent job dissatisfaction. If any of these factors were felt to be substandard or poor there tended to be job dissatisfaction. However, the presence of such hygiene factors did not in themselves create job satisfaction.

On the other hand, 'Motivator' factors promoted job satisfaction by their presence, but only when hygiene factors were also present at satisfactory levels. The common element of motivators is that they are all related to the intrinsic nature of the work itself; they are not merely elements or circumstances surrounding the job. Therefore, Herzberg's motivator factors correspond to the higher personal growth needs in Maslow's hierarchy of needs.

David McClelland (1970) identified three basic motivating needs, which, to some extent, correspond to Maslow's social, esteem and self-actualisation needs.

1. **The need for affiliation.** People with strong need for affiliation usually gain pleasure from a group within which they enjoy intimacy, understanding and friendly interaction, and are concerned with maintaining good relationships.

2. **The need for power.** Those with a strong need for power want to exercise influence and control. They seek positions of leadership and influence, and tend to be argumentative, demanding, forceful, and good communicators.
3. **The need for achievement.** People with a strong need for achievement have an intense desire for success, and an equally intense fear of failure. There is a strong need for feedback as to achievement and progress, and a need for a sense of accomplishment

McClelland (1970) measured the levels of these needs in various individuals, discovering that the existence of one need did not mean that the other two did not exist; rather, that an individual could be strongly motivated by combination of all three needs.

Perhaps the most influential thinker on motivation in the workplace was Douglas McGregor. His view point is probably best summarised in his own words (quoted by Warren Bennis in the preface to McGregor 2006, p. xx) as follows:

“Out of all this has come the first clear recognition of an inescapable fact: we cannot successfully force people to work for management’s objectives. The ancient conception that people do the work of the world only if they are forced to do so by threats or intimidation, or by the camouflaged authoritarian methods of paternalism, has been suffering from a lingering fatal illness for a quarter of a century. I venture the guess that it will be dead in another decade.”

McGregor’s ‘constructs about the person’ model uses our implicit assumptions or theories about the nature of mankind as a means of tracing our attitudes and behaviour towards people’s motivation. The traditional view (Theory X) held that the average human being has an inherent dislike of work and will avoid it if he can. Because of this human characteristic of dislike of work, most people must be coerced, controlled, directed, threatened with punishment to get them to put forth adequate effort toward the achievement of organizational objectives. The average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition, and wants security above all.

The contrasting view (Theory Y) holds that expenditure of physical and mental effort in work is as natural as play or rest. External control and the threat of punishment are not the only means for bringing about efforts toward organizational objectives. Human beings will exercise self-direction and self-control in the service of the objectives to which they are committed. Commitment to objectives is a function

of the rewards associated with their achievement¹⁸. The average human being learns not only to accept but to seek responsibility. The capacity to exercise a relatively high degree of imagination, ingenuity and creativity in the solution of organizational problems is widely, not narrowly distributed in the population (McGregor 2006).

Coghlan (1993, p.119), writing about the emergence of Schein's Process Consultation, remarked that: "[Schein] *corrected the often-mistaken notion that [McGregor's] Theory X and Theory Y describe modes of behaviour. Rather, they are theories of motivation, and assumptions about human nature on which behaviour is based.*"

For our purposes the important issue that emerges from these considerations is that the factors that motivate people can be separated into two basic categories – those intrinsic to the individual (e.g. Maslow's higher levels; Herzberg's motivator factors; McClelland's motivating needs) and those extrinsic that are supplied by others (e.g. Herzberg's hygiene factors). As Ellerman (2005, p.11) recognised: "*Autonomous action is action based on internal or own motivation.*" and so any process of change that seeks to truly empower people, change attitudes or second order factors needs to carefully foster intrinsic motivation.

However, as Korten (1983, p.220) observed: "*the central paradox of social development: [is] the need to exert influence over people for the purpose of building capacity to control their own lives.*" So how can an external agent of change operate to provide impetus without negating the very forces that they are seeking to unleash? As Esman and Uphoff (1984, p.77) warned: "*Communities, especially poor ones, can benefit from external assistance, but to rely much on it creates a dependency that may prove to be counter productive. The concomitant paternalism is likely to inhibit self-help and even undermine long-standing patterns of community initiative.*" So dependency must be avoided at all costs. Indeed, Ellerman (2005, p.45) noted that: "*it frequently seems to be the case that external incentives superimposed onto a system involving internal motivation in order to better achieve control will tend to crowd out and atrophy the internal motivation.*"

In order to overcome these paradoxes Ellerman (2005, p.37) proposes that the two categories of motivators are placed in a specific relationship, thus: "*The relationship between internal and external motivation is represented here using a foreground-background model. By being in the foreground, I mean that that motivation essentially governs decision, but the other motivation is still present in the*

¹⁸ The influence of the ideas of Abraham Maslow on McGregor's thinking is acknowledged in footnotes in McGregor (2006, pp. 48 - 49).

background.“ so that at all times the change agent is mindful of where motivation for changed behaviour is coming from and takes steps to ensure that the balance is always in favour of intrinsic motivators being in the ascendancy.

It is important to recognise that in operating as an agent of change you will always face obstacles to getting it right that are generated both internally (your own desires and perceptions) and externally (the perceived expectations others have of the process and the role of the change agent). As Mayon-White (1993, p. 134) warned: *“In the early stages of analyzing the setting of a change problem, it is common for the facilitator to find him/herself in the ‘parent’ role of tutor as the methodology is first explained.”*

So, in embarking upon a process of facilitation of change through Action Research it is necessary to understand, at least superficially, the psychological implications for the change agent and those with whom they are working.

2.4.3. Psychological Considerations

By far the most important consideration must be the impact of change and the personal transitions that individuals undergo. A transition can be defined as a discontinuity in a person’s life space, which requires new behavioural responses (Hopson & Adams 1976). During transition states we move from one stage of development to another, from one role to another, from one set of circumstances to another, or from one physical settlement to another. Almost any transition, whether negative or positive or even a minor change in attitude, will result in people being subjected to some degree of stress and strain and to increased vulnerability. However, transition states also offer a great potential for personal growth and development. Thus a transition period is both a time for heightened vulnerability and heightened potential.

There have been several systematic attempts to describe the human experience of transition. One useful model formulated by Hopson and Adams (1976) postulates that almost any life transition will trigger the following predictable cycle of reactions and feelings:

1. **Immobilization** – This first phase is a kind of immobilization or a sense of being overwhelming; of being unable to make plans; unable to reason; unable to understand. This initial phase is often experienced by people as a feeling of being ‘frozen up’. It appears that the intensity with which people experience this phase is a function of the unfamiliarity of the transition state and of the negative expectations they hold.

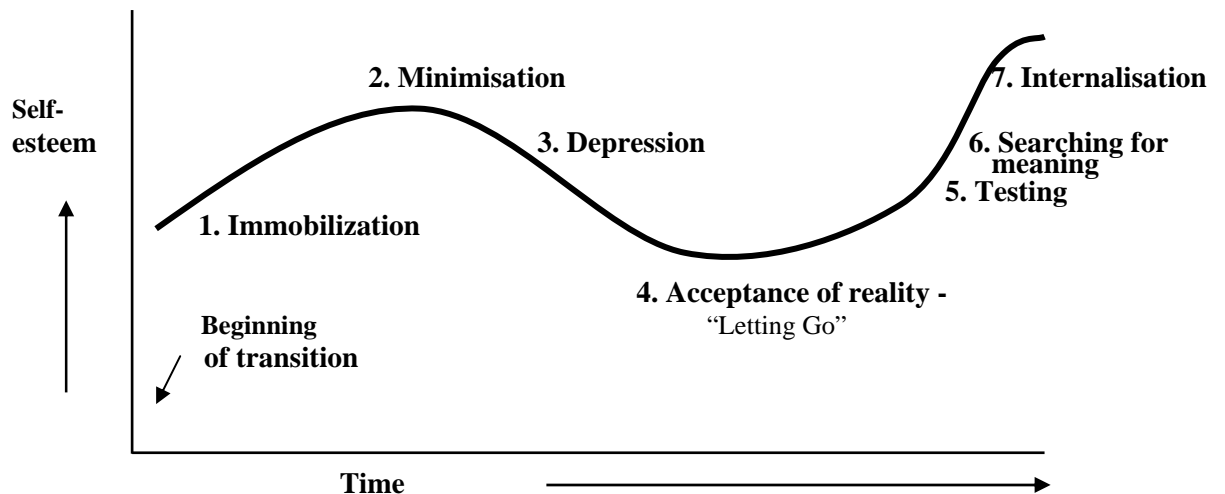


Figure 2.6: Self-esteem changes during transitions (Adapted from: Hopson & Adams, 1976, p. 13).

2. **Minimisation** – The way of getting out of this immobilization is by movement to the second phase of the cycle, which is characterised by minimisations of the change or disruption to trivialise it. Sometimes individuals will even deny that the change actually exists. It can be seen as a normal and necessary reaction to a crisis that is too immediately overwhelming. Denial provides time for a temporary retreat from reality.
3. **Depression** – As people become aware that they must make some changes and, as they become aware of the realities involved, they often begin to doubt themselves. This self doubt, which sometimes manifests as depression, arises because they are just beginning to face up to the fact that there has been a change, and it may be difficult to know how best to cope with the new requirements, or whatever other changes may be necessary.
4. **Acceptance of Reality: “Letting Go”** – During the first three phases there has been a kind of conscious or subconscious attachment to the past. To move into this next phase involves a process of disengaging with the past and of saying, ‘here I am now; here is what I have, here is where I want to go’. As this is accepted as the new reality, the person’s feelings begin to rise once more and optimism becomes possible.
5. **Testing** – In this phase the person becomes much more active and starts testing themselves in relation to the new situation. This could involve trying out new behaviours and new ways of coping with the transition. There is also a tendency at this point for people to stereotype, to have categories and classifications of the way things and people should or should not be relative to the new situation.
6. **Search for Meaning** – This involves a gradual shifting towards becoming more concerned with understanding and for seeking meanings for how and why things

are different. This is seen largely as a cognitive process in which individuals begin to understand the meaning of the change.

7. **Internalisation** – This conceptualising allows people to move to the last phase, that of internalising these new meanings and of incorporating them into their normal behaviour.

Overall, the seven phases represent a cycle of experiencing disruption, gradually acknowledging its reality, testing oneself, understanding oneself, and incorporating changes in one's behaviour. The level of one's self esteem varies across these phases and also seems to follow a predictable path.

Chapman (2002, p.18) recognised that changes of this kind also take place within a wider social group, as follows:

“the psychological engagement required for reframing is not normally possible without a deeper level of involvement among stakeholders in the system. It occurs, for example, when participants take part in ‘communities of practice’ where new cultures are constructed through experiential learning and reworking of cognitive structure.”

According to Tuckman (1965) setting up and managing groups of people requires good understanding of group processes. One way to manage teams is to think of them as having a life of their own. Just as we go through stages in our lives, a team will also go through a number of stages of increasing effectiveness. Five main stages have been identified:

1. **Forming** – In this stage the team comes together; it is not yet a team but a set of individuals. Each individual wants to establish her or his personal identity within the group and to make an impression. The individuals will have different personalities, knowledge and experience. The members may have been invited to join or they may have volunteered. At this stage the members need to get to know each other and form a common bond and accept that they are all working on the same task. Informing is part of this stage. The team members are made aware of the task and the purpose and goals. There is a lot of information exchange as people check out what is happening and what is wanted to achieve the common purpose.
2. **Storming** – Now the members adopt roles and a structure starts to develop. This is a very important creative stage. The energy is high and many ideas are generated. Members may experiment and test the original ground rules and purpose. Differences of opinion and ideas are identified but also the common ground. Some ideas may be rejected at this stage and some people may be alienated. Dominant individuals are noticeable and there may be personality

clashes and even rebellion against the leader. This is the stage where the effectiveness of future work may be influenced; but, if successfully handled this stage leads to new and more realistic setting of objectives, procedures and targets.

3. **Norming** – In this stage the members of the team find ways of working together and develop team spirit and harmony. Team members accept each other and each other's habits. The team plans how to do the work and gets together the resources required. Roles are divided between members of the team and the team becomes stable.
4. **Performing** – This is the productive stage. The members of the team get on with the task and the work is shared out. Through co-operation and participation of all members, the team works towards achieving its goals.
5. **Adjourning** – As the task comes to an end the team may be disbanded and individuals may feel a sense of loss as well as relief. This is the final stage. The team has completed the task. The original purpose for having the team has ended.

Similar stages have been observed by others. For example, Zurcher (1969, p.245) in observing poverty program neighbourhood action committees identified seven stages of development which he himself suggested: *"could parsimoniously have been reduced to four stages suggested by Tuckman"*.

2.5. The Focus of the Study

According to Levy (1986) there is a distinction between first order changes – which are adjustments within the system that keep it stable in respect of its purpose, and second order change – which effectively change the nature of the system itself via its' basic governing rules. Argyris (1999, p.9) recognised these differences when he recorded that: *"Single-loop learning is appropriate for the routine, repetitive issue – it helps get the everyday job done. Double-loop learning is more relevant for the complex, non-programmable issues – it assures that there will be another day in the future of the organization."* Chapman (2002, p.18) describes such second order change as transformational change and recognised that: *"for transformational change to occur, values, beliefs and attitudes must be altered in the early stages, because these provide the foundation for subsequent alterations in work patterns, structures and systems."*

The kind of process of change envisaged in this study requires that professors adopt new procedures, systems and technology in relation to their daily praxis for professional development. Everywhere we can hear the top executives talking about the need to 'transform' the university (Trigueiro 1999), to overthrow

bureaucratic cultures (Meneghini 1992), to become learning organizations (Mendes, 1997). Nevertheless, the evidence for successful university transformation is rare (Krawczyk, Campos & Haddad 2000). Moreover the basic assumption that only top management can cause significant change is deeply disempowering. So, why, then, in the age of empowerment do we accept it so unquestioningly?

Perhaps, the answer for this question lies in the factors for resistance of change, especially the element of self-protection and the comfort of being able to hold someone else, namely, top managers, responsible for the lack of effective leadership (Trigueiro *op.cit.*). Even more dangerous, the involvement of the top managers use to have the side effect of increase fear, distrust and internal competitiveness and reduce the cooperation and collaboration, thereby creating compliance instead commitment (Krawczyk *et al.* 2000).

There can be little doubt that a top manager opposed to the process of change can make it difficult (Gabor 1990). However, this hardly proves that only they can bring about significant change. In fact, the top managers 'buy-in' is a poor substitute for the genuine commitment at many levels of the institution, so that if the management authority is used unwisely, it can make such commitment less rather than more likely (Senge 1990).

2.5.1. *The need for change*

Having gone through a very wide review of the literature, it's clear to me that in a continuously changing and increasingly competitive world, the role of Higher Education Institutions in building the capacity of the labour force and creating innovation and supporting sustainable development is pivotal.

However, in order to do this UFRA needs to change the nature of its provision to reflect the changing demands of our students and the society as a whole. This is implied in: a) encouraging and fostering the engagement of students from the poorest class; b) developing new teaching methodologies and new courses to meet the needs of a wider range of learners and those who need to combine learning with work; c) increasing and strengthening the links between the university and business. To sum up, UFRA needs to become a learning institution through the change of its professionals and the creation of a community of practice.

The key element in the methodology selected to try to provoke institutional change at UFRA is the facilitation process. The facilitator or Internal Agent of Change (as presented later in the next Chapter) ultimately must ensure that professional learning move towards a social process (Altrichter 2005) in order to achieve sustainability of the overall process of change.

Thus, this process tends to avoid the characteristics (see chapter one section 1.1) of those attempts at change carried out by MEC and seeks for the ability to change the discourse and empower professionals. Since the empowerment implies in work against the power-over (see section 2.3.3), the facilitation must foster participant's creativity, determination, enthusiasm and motivation.

If a sustainable process of institutional change is desired this process has to be autonomous. Hence, the motivation must be related to the intrinsic nature of the work itself. As posed in the section 2.4.2, in the end the motivation process can be summarised into two kinds: intrinsic and extrinsic. Therefore, the crucial aspect of the motivation is to take steps to ensure that the balance is always in favour of intrinsic motivators.

The challenges were set and the methodology selected are clear and the path to achieve the aims of this study can be initially portrayed in Fig. 2.7 below.

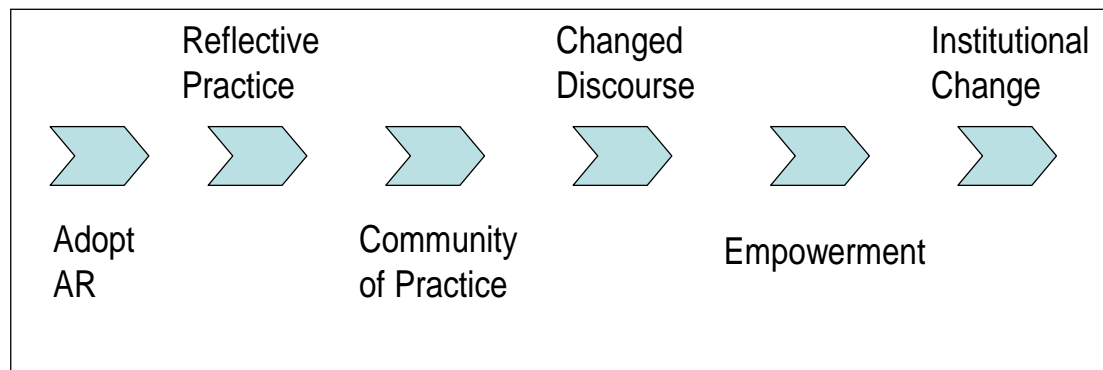


Figure 2.7: The hypothesis of Action Research mediated institutional change.

For, as Reason and Bradbury (2001, p. xxvi) recognised:

“A structuration perspective therefore offers theoretical support for seeking leverage for desired change at macro levels through intervention at the individual and dyadic or small-group micro levels.”

Armed with these concepts we can now turn our attention to the study itself and in the following two chapters I will present the methodology and the methods used to conduct and collect evidences of this 3 years study.

Chapter Three

3. Methodology

This chapter addresses aspects of the ontology, epistemology and methodology used to create my own identity as an Internal Change Agent/Facilitator (ICAF). It also describes the ways of accommodating multiple values and perspectives, and how to share these beliefs, commitments and hopes with other practitioners and the wider community of practice. Thus, the next pages present the approach adopted to discover the role that must be played by an internal agent of change, and to reflect upon what I know and how I know it; the research procedures that provided the evidence to support the decisions made; and finally, evidence of the validity of my claim to knowledge by providing some indicators of success.

3.1. *Research Approach*

Given the nature of the change process that was envisaged, within a context where the concept of Action Research was unknown, it was imperative that such a process itself should be founded upon and operated through Action Research and that research should be undertaken by an ICAF¹⁹, mentored by an experienced change agent external to the institution, but familiar with it²⁰. As Action Research was proposed as the answer to the first question posed in the introduction, I was now concerned about the other two major questions that form the core of this project, namely: **What is the best way to introduce an Action Research approach for academic staff at UFRA?**; and **How can university professors with little knowledge of Action Research be trained through the actions of this Action Researcher, supported by experienced researchers, to develop professionally and build their own capacity for change by engagement with another research methodology?**

The attempt to answer these two questions represents the process of learning to be an insider agent of change within the context of a Brazilian rural university. This Action Research project was designed in two synchronous and parallel processes to take place at two different levels (Fig. 3.1). From inside to outside, the first level was the facilitation process of introducing AR to other professors and the second the research into that process of facilitation as a piece of AR in its own right. The facilitation represents the process whereby each

¹⁹ Marcel Botelho – The author

²⁰ Robert Kowalski – Director of studies

participating professor²¹ was to be supported to use Action Research to change their own practice.

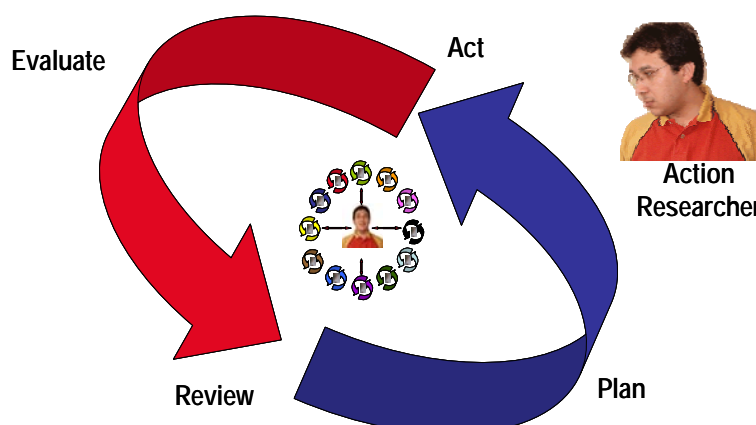


Figure 3.1: Two synchronous roles played by this Action Researcher.

In order to facilitate the process of the adoption of Action Research a range of skills²² were required that included presenting and introducing the AR methodology, training, supporting and debriefing the volunteers, and managing motivation and group development. These processes will be presented in detail in the sections that follow.

The second level shows the outer Action Research cycle that I was undergoing myself whilst facilitating the introduction of AR to the professors. This process consisted of a classical Action Research cycle²³ of plan-act-evaluate-review. Briefly as displayed in Fig. 3.1, the Action Researcher was responsible, firstly, for the assessment of the actions of the facilitator by collecting data regarding the impacts generated by these actions using different data collection instruments (presented in section 3.2.2 below). Once these data were analysed the process of facilitation was reviewed and improved through a process of reflective feedback.

The whole facilitation of the process of change may be better described as taking place in three phases, after Fullan (2001): a) Mobilization; b) Implementation; and c) Continuation (see Fig. 3.2). As explained in section 2.4.1, this may also be considered to be a restatement of Schein's classical model of 'Unfreeze-change-refreeze' (Schein 1995). These three phases represent identifiable pieces of Action Research in their own right that should be analysed not only separately, but also as components of a single process of change, as indicated in Fig. 3.2. This was

²¹ Academic staff in Brazilian Universities are accorded the title Professor and I will follow this designation from now on.

²² See for instance Bee & Bee (2004)

²³ See for instance McNiff & Whitehead (2003)

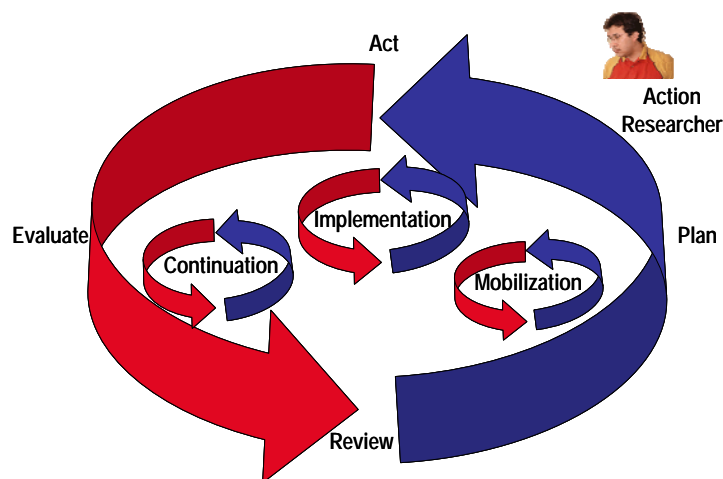


Figure 3.2: The Facilitation Process as three phases, each going through its own, distinct cycle of Action Research, within the Action Research of the overall change process.

particularly true since these phases were closely connected and occurred in a sequence that was naturally dictated by the unfolding events during the entire process.

Action Research as a paradigm is even more unpredictable in terms of planning its course and predicting its outcomes than positivist approaches²⁴, and this work is itself innovative and ground-breaking within the Higher Education context (Whetten 1989).

Due to the design of this research approach the Action Researcher represents the independent variable of the process, and is an integral part of the data set. As the independent variable is constituted by my actions, the notion of sample size is totally inappropriate. I have been looking at the whole process: planning, acting, evaluating, reflecting, and documenting it, and I had been working with the professor volunteers, other professors and students from UFRA, and recording my own perceptions of events to understand and improve the whole process, as set out in the next chapter in Table 4.1.

The decision to work with a group of volunteers was rooted in the diagnosis I made as the ICAF, together with the experienced external change agent, in relation to our experience as professors and development facilitators. It was also based on arguments contained in the literature about the threats to Action Research, as exemplified by the uncontrollability and subjectivity (Kock 2004) discussed in Chapter Two, for if the findings are not representative of the whole institution, the resulting changes and the claim for a theoretical model maybe 'ineffective' at best, and at

²⁴ Action Research sits outside the Positivist epistemological paradigm (Johnson & Cassell 2001) and falls within what may be regarded as the epistemic reflexivity paradigm (Johnson & Duberley 2003).

worst could result in other problems in the future (See for example, Chambers 1997; Levinson 2002; Kock 2004; Moates, Armenakis, Gregory, Albritton & Field 2005).

Also, the AR paradigm accepts that the risks to the continued participation of a sufficient number of the participants had to be part of the exploration of the methodology embedded in the research and a fundamental part of the learning process in which I was immersed. Thus, this process would provide the elements for a critical reflection on choices of action – such as the appropriateness of the size of the participant group – that would inform the performance of the ICAF.

In addition, within AR there can be no notion of piloting interventions, as each action of the researcher changes the future context, so there was no possibility of the ‘re-winding’ of events that, in other paradigms, piloting allows. Having said this, where data was collected outside of the volunteer group – from the student body at large, for example – then issues of sample size and piloting have been addressed as suggested in the works of Bowerman and O’Connell (2003) and Cohen, Manion and Morrison (2003).

Thus, the support provided by the literature review, the experienced change agent and my own experience provisionally led to a belief that the processes described above were the appropriate responses to the two questions made in the introduction and again at the beginning of this section. However, more issues had to be considered before this process could start. In thinking about the whole process a number of issues from the fields of Educational Action Research, Organizational Action Research, Organizational Development, Organizational Change, and Participatory Development (discussed in the literature review of the previous chapter) had to be taken into consideration in formulating the plan. These also came from practical experiences of working within this and other similar institutions (Botelho 2003 and 2004; Kowalski 1994 and 2004; Dearden 2002) and from literature associated with the management of change (see for example Lippitt, Watson & Westley 1958; Peters 1987; Dannemiller & Jacobs 1992; Carnall 2003). In the next pages these methodological influences will be explored as I describe the approaches that were used to facilitate each phase of this project.

3.1.1. *Actions as Facilitator*

These will be discussed in the three phases of mobilization, implementation and continuation.

3.1.1.1. *Mobilization*

The mobilization phase was initially planned to be addressed in two cycles. The first would follow the initial plan (as described below). The second should follow

the same principles, but the actions for this and subsequent cycles would be adapted according to the research findings and emerging requirements of the process, according to the views of the ICAF and the participants. In the end, three cycles of mobilization were conducted in the time available and the actions of the facilitator as well as some details of what had determined these paths are described next.

The first Mobilization cycle was conducted in four stages: gaining consent; presenting the concept of Action Research to potential participants; recruitment; and training the participants. As will be elaborated in the matter of ethics (section 4.2.1), my first action was to gain support from the Rector and from the incumbent Rector's rival.

There were three major considerations regarding recruitment. The first was that the participants should be volunteers. The second was that there should be an optimum number in the first group, neither too many for the facilitator to be able to mentor, nor too few to risk the sustainability of the project (allowing for natural wastage over time). The third was to achieve a balance of participants in respect of gender, age, length of service, academic interest and social affiliation (it was considered important that the group should not be perceived as partisan within the micro-politics of the institution).

Just one restriction was made at this stage of the project. Despite the major concern to have participants engage voluntarily, those professors that were members of the senior management staff were not to be accepted as volunteers. This restriction was made in order to avoid the influence of external motivation (represented by the power of the managers) leading other professors to put themselves forward. Fundamentally, I believe that, as pointed out by Ellerman, (2005), the authentic process of change lies in the intrinsic motivation of each participant.

It was optimistically predicted that more than sufficient interest would be generated by the presentations and so a selection process was anticipated. Paradoxically, this could not be undertaken in respect of the third consideration (balance) without undermining the more important first consideration (voluntariness). With sufficient participants stepping forward, the next stage was to train them all, providing them with a sufficient level of understanding to be able to start their own piece of Action Research. On advice from the volunteers, the training was conducted over two days in an intensive but active programme, which was to be considered complete by the facilitator once each of the participants was able to submit a plan for carrying out their own piece of Action Research. It was hoped that the final outcome

would be a group of 12 participants who would present research plans that would enable the project to move into the implementation phase.

The assessment of three variables - the risk of under recruitment, the level of knowledge and the autonomous behaviour demonstrated by some participants - was used to determine the moment to launch the second cycle of mobilization. Nevertheless, as highlighted in the first paragraph of this topic, this second cycle was slightly modified from the first in terms of the actions carried out. For instance, there was no necessity to gain management consent, nor to present the concept of Action Research to potential participants again. Instead, I moved straight to the recruitment stage when I asked the first participants themselves to nominate professors who, in the interim, had demonstrated interest in their work as Action Researchers. Additionally I included some professors who had approached me voluntarily. Once more, I discouraged, in the first instance, and then prohibited, the participation of members of senior management staff based upon the same principle that had led me to take this decision in the first cycle.

The training programme for the second group was conducted taking into account the same features highlighted for the first group, with some minor adjustments. Nevertheless, the hoped-for outcome for the second mobilization cycle remained the same as for the first cycle.

A third cycle of mobilization was considered and occurred on the same basis as the second at the very end of the study, but optimistically it was anticipated that it would occur totally based on self-recruitment. In other words, it would consist simply of volunteers coming forward out of their own interest. This meant that from that moment on the conduct of further recruitment actions, as made in the first two cycles, by the ICAF or participants, would be unnecessary.

As important as self-recruitment is, during this third, and subsequent cycles of mobilization the training activities were to be carried out by the participant professors with minimal involvement of the ICAF. Therefore, the third cycle of mobilization occurring in this way would represent the integration of this phase with the implementation and continuation phases of the use of Action Research by professors of UFRA that would signify progress towards reflective professional development and institutional change.

3.1.1.2. Implementation

The Implementation phase was planned to take place in two stages: directive-individualised and collaborative (Law 1999). The actions of this phase were planned to include the conduct of tutorials with each participant once a week and the conduct of meetings with the whole group of participants every 15 days. Initially, I

carried out the process in a technology transfer mode (Bee & Bee 2004), with the focus and direction of the meetings being determined by me.

As the practitioners learned to trust each other and develop shared goals, I relinquished charge of the conduct of the meetings. This allowed the participants to explore their goals through group collaboration, self-reflection, and systematic and intentional inquiry to effect change in their educational practice. Subsequently, all decisions would be made in a responsive and collaborative way according to the unfolding of the whole process.

From the outset, to avoid or minimise the risk of under recruitment, my role was to identify the factors behind the desire of individual participants to withdraw during the implementation phase and apply strategies to avoid this withdrawal. These strategies included the use of interviews, group discussions, and individual tutorials to address those factors that were linked with the initial drivers and intrinsic motives that led to the original decision to volunteer to take part.

As a consequence of the strategies described above, the AR group divided itself into three thematic sub-groups according to the focus of their chosen research projects (Assessment, Motivation and Teaching Methodology groups respectively). It was very important for me to avoid making any kind of influence at this stage in order to prevent the emergence of dependency.

There is a clear difference regarding the actions of the facilitator within the implementation phase in relation to that within mobilization. During implementation I was involved in actions where my role was not only directive, that is telling the participants what to do as part of the ongoing process of learning about AR methodology, but also involved encouraging participants to develop their own understanding, knowledge, and criticism about Action Research and the process of institutional change (collaborative). This later action was undertaken by asking questions of participants during individual tutorials and also during the group meetings.

The balance of telling and asking (Williams 1996) was pivotal for group management as well as for the management of motivation. Together, these two actions represent the major role of the facilitator at this stage of the process. This balance was also crucial to avoid the phenomenon of dependency on the support and direction of the facilitator by the participating professors. This typical pitfall for professional development programs was avoided or at least minimised by permitting each participant to develop their Action Research project according to their own pace. In other words, the ICAF must find the balance individually, for each participant will have different requirements and will demand different balances. For this reason,

this stage of the implementation phase became extremely time-consuming so that the target number of participants had to be carefully evaluated in order to fit with the real capacity of the ICAF to manage.

Although there was no need to reduce the size of the Action Research group in the light of what was said above, unfortunately the group was reduced of its own accord by the withdrawal of some participants. Simultaneously, as the participants' growth in confidence and increased independence from my action of 'telling', the second cycle of mobilization brought new participants into the Action Research group so that my actions now led me to gradually involve the existing participants themselves in the actions of 'telling' what to do, in relation to the facilitation approach to the new participants. At this stage of the project the existing participants started to act as facilitators of the new participants.

Similarly, as I had struggled to avoid the temptation to offer more help than they needed, therefore avoiding dependency on my action of 'telling', the existing participants also had to avoid it as they acted to induct the new group. Thus, the participants started to face a new challenge about balance: Individual versus Collaborative. Initially, this balance had been easily achieved since the only person able to create dependency was me, as the facilitator, because the participants enjoyed the same level of understanding of AR. However, at this next stage a huge difference in such understanding could be observed amongst the members of the first and second groups of participants. Thus, the actions taken were to offer closer individual support for the new participants and, at the same time, through the process of 'asking' questions, to remind the first participants of how their process of learning had been facilitated and then stressing the importance of self-discovery. These actions were essential to build concomitantly individual professional development and collective validation of findings, avoiding the threat of contingency (Kock 2004).

As observed with the first group, some members of the second group also manifested a desire to withdraw. Again, as part of the ethical agreement, such decisions were not challenged. Meanwhile, members of the first group who had withdrawn were invited to return, if only to play a more peripheral role. That is they would be integrated into the Action Research group but would not be conducting their own Action Research project.

Last but not least, the facilitator, in the implementation phase, was responsible for collecting information about - and fostering the development of -

social capital²⁵ amongst the participants (Hooghe & Stolle 2003; Oh, Labianca & Chung 2006). That is, by using sociogram analysis the group dynamics were explored, searching for evidence that could indicate any new social and/or academic relationships that contributed to overcoming the constraints of individualistic behaviour and the corporative attitudes prevalent in the institution. In this regard, the overall meetings and/or focus group discussions were used to strengthen the sense of a community of practice, as each participant was invited to share their results and feelings about the whole process.

3.1.1.3. Continuation

Initially it was planned that the participants would move into the continuation phase eighteen months after the first presentation and call for volunteers, and based on the results of their own Action Research, when they would be working with me to try to enlarge, consolidate and provide sustainability to the process of Action Research driven change. The main feature at this phase was not going to be the size of the group but the commitment of the participants and their actions to meet a range of needs to ensure an integrated development.

However, throughout the whole process those actions that I carried out, as the ICAF, have affected, and therefore belong to, more than just one phase. In this way, some actions of the continuation phase had already been executed earlier on. For instance, the actions of presenting the project to the Rector and his rival; of prohibiting the participation of top managers; of changing the process of mobilization for the second and third cycle; of involving the first participants in the process of inducting the second group of volunteers; of managing the group and their motivation; and finally of dividing the group into different thematic research sub-groups all fell into this category.

On the other hand, other actions conducted at this latest phase would have consequences for the other two phases in subsequent cycles. These included the creation of the peripheral group, the dissemination of the results and findings of the AR projects, and the monitoring of institutional impact.

In the end, these latter actions enabled the Action Research group to create intellectual self-defence, which enabled them to be aware of potential retaliation or resistance of the wider institution to the use of Action Research and then to develop strategies to deal with such institutional micro-politics (Carr & Kemmis 1986). These actions also helped to create an environment in which some participants could become ICAF's in their own right so that they can support other participants' projects

²⁵ Social capital measures the degree of social interaction amongst the members of a community (DFID, 1999)

in other aspects of professional practice and thus create a potentially sustainable process of institutional change.

3.2. Research Procedure

As outlined above, to some extent the actions developed by me as the ICAF were dispersed amongst all three phases, and eventually these actions were part of two or even three phases simultaneously. However, as a facilitator simply responsible for the support of the adoption of Action Research and for evaluating the individual Action Research projects there was no requirement to be reflective. As shown above, during those three phases, my role as a facilitator was about introducing, training, debriefing and supporting the participants (Bee & Bee 2004). That is, as a facilitator I was conducting only the action part of my own Action Research cycle. However, as an Action Researcher I had to be involved in searching for data that could help me to learn about my praxis as a change agent and also that could indicate that professional development and institutional change was happening. In other words, this meant to actively search for understanding about how to be an internal agent of change within this context. Thus I will now present the Action Research activities undertaken by me within the 'outer cycle' context of this study (as shown in Figs 3.1 and 3.2) as well as the instruments of data collection used and ultimately the principles required.

3.2.1. Actions as Researcher

As highlighted by McNiff and Whitehead (2003), there is a debate amongst Action Researchers regarding the purposes of Action Research, namely E-theory and I-theory as presented in the literature review chapter (section 2.2). Particularly, I have espoused the ideas that Action Research is not only about describing the actions in order to understand behaviours and attitudes, but also and fundamentally it is about finding ways of *"influencing social change through the production of descriptions and explanations by individuals themselves to account for their practices"* (McNiff & Whitehead 2003, p.40). Therefore, I will now present how I set about planning, acting, assessing and reviewing my behaviour and attitudes manifested in the facilitation of the introduction of Action Research as a methodology for organizational change.

For instance, during the Mobilization phase I was concerned about questions such as: What is the best way to introduce AR? What are the training needs required? What is the appropriated time scale for the training? However, as an Action Researcher, I was also concerned about questions such as: How effectively did I present the project? Why have these particular professors volunteered and why

have others not? How else could I have conducted the training? How else could I have managed the process of selection? How could I have encouraged them to think, challenge, and have confidence in their capacity to be competent Action Researchers? How else could I have fostered emancipatory learning?

Such questioning characterised the other two phases so that, as an Action Researcher, I systematically monitored my facilitation practice by keeping notes in my diary about the daily activities and observations; by recording the interviews with participants, other professors, students and technical staff; by being debriefed by a critical friend; and by exposing my thoughts to the criticism of participants and a wider community of practice through participation in seminars and conferences.

As shown above, my claim for the validity of my Action Research methodology, and hence the validity of my findings about the facilitation process, comes from the focus upon my praxis in a real setting, through the systematic collection of data, and the act of commitment, from myself and all participants, in its full structure that saves individuals' knowledge from being merely subjective.

3.2.2. *Instruments of Data Collection*

Throughout the research, systematic data collection has been conducted in line with the principles described above. Six instruments of data collection were used corroboratively both to facilitate the change process (for example participant reflective interviews and observations) and in the Action Research into the facilitation of the change process itself (for example questionnaires for volunteers and non-volunteers, diary entries, sociogram analysis and institutional document analysis).

3.2.2.1. *Observation*

From the moment that the first approach was made to the Rector and his rival and the subsequent first Mobilization phase, I started to make structured observations of the behaviour of a variety of the protagonists, and to record their practices formally, trying thereby to identify features that would inform future actions of both the facilitator role (Coghlan & Brannick 2001; Goodnough 2003) and the Action Researcher role (Burchell & Dyson 2005). The observations enabled me to understand the participants and the context of the research, to be open-ended and inductive, to see things that might otherwise be missed, and to uncover things that the participants might not freely talk about in interview situations. In other words, observation enabled me to enter and understand the situation that was being researched (Patton 2001). The kind of observation conducted in this project was neither exclusively structured nor unstructured, but even when I had a clear agenda of things that I wanted to observe I remained open to the variety of evidence

presented to me. For example, I might know in advanced what I was looking for, then pass through some moments when I had an agenda of issues and gathered data to illustrate them, and finally to moments when the situation would be far less clear, deviating from what I had anticipated and I would therefore have to record what was taking place before deciding on its significance for the research after the event.

An example of a completed observation schedule is given in Appendix 'P'.

3.2.2.2. Diary

Since the outset of this study I have been keeping a diary as a reflexive journal in which I have recorded my unstructured observations, thoughts, fears and problems, as well as critical incidents, events and breakthroughs I considered important for the development of each aspect of the research. Thus, I used my writing to develop a richer understanding of the phenomena under investigation. The maintenance of a research diary is a common practice in Action Research, as well as in grounded theory approaches. Within the diary I could document things such as my theorizing about ideas, concepts, categories and their relationships as they struck me whilst in the field of action and/or during data analysis (Burgess 1982; Lincoln & Guba 1985). This procedure was used to keep track of emerging ideas and categories, to stimulate further analysis and data collection, and served as a means for the development of assertions and theoretical integration. An example of a page from my diary is given in Appendix 'Q'.

In qualitative research the processes of data collection and analysis are difficult to separate. For this reason, the analysis of my data began from the very first day of my intervention. In analysing my data I followed the three stages suggested by, and adapted from, Erickson (1992): deductive, inductive and deductive. Deductively, I used my own experiences and those of others presented in the literature to formulate a plan for action and then, by collecting enough data, a pattern would inductively emerge leading me to the stage of deduction again, generating new insights that could inform further actions and data collection in a leaning process. The diary was used to mediate and record this process, enabling me to reflectively digest my data in order to ensure that I had captured every aspect. It also acted as a source of retrospection providing certain indications that could support or contradict the assertions formulated during analysis.

3.2.2.3. Questionnaire

The third instrument of data collection used was the questionnaire. This instrument is used to collect structured and numerical data, can be administered without the presence of the researcher (Wilson & McLean 1994; Bulmer 2004), and

is often comparatively straightforward to analyse (Cohen *et al.* 2003). It is difficult to make any fresh comment upon such a widely used method of data collection.

All questionnaires used in this study were designed in order to corroborate on-site observations and interviews. All the questionnaires used in this study are given in Appendix 'A' to 'H'. The potentially limited scope of the data collected and the limited flexibility of the responses provided by the questionnaire method were intended to be overcome by using those instruments mentioned above, as well as by the use of the fourth instrument for data collection: the interview.

3.2.2.4. Interview

Interviews were used in the selection of volunteers (Hollowitz & Wilson 1993), to evaluate the performance of participants and to collect data about each moment of this study from the perspective of both participant and non-participant professors (Kvale 1996). Therefore, using interviews I could test and suggest hypotheses to identify variables and relationships regarding different events. As an ethnographic interviewer (Keats 2001) I had to have certain attributes in order to ensure the forthright sharing of many of the personally held perspectives of everyday events. In other words, there had to be trust between the interviewer and the interviewee so as to place the pursuit of a common goal above personal egos; curiosity to know and learn about what drives me to overcome difficulties in conducting a successful interview; and lastly an environment of authenticity which aims to capture only what is within the mind of the interviewee, unaffected by the interviewer.

3.2.2.5. Sociogram

The last instrument of data collection used within this research was the sociogram, which was constructed with the use of a questionnaire designed to collect information regarding the relationships between the participants (See Appendix 'A'). This was used as a way of taking 'snapshots' of the structure of interpersonal relationships at different times in the process and then to visualise and analyse information concerning the impact of interpersonal, psychological and subjective relationships on the development of the group of participants. Sociogram tests can help to identify potential leaders, identify those who are likely to be socially isolated, and evaluate the group cohesion in order to manage the group (Miller 1991). In addition they can be used as an instrument to measure sociological changes by comparing snapshots from different moments in a process of change which is particularly important in the context of the 'corporativism' endemic at UFRA. They also provide further reference points to enable triangulation against data gathered through the use of other instruments.

3.2.2.6. Institutional Documents

In addition to the above there were institutional documents such as lists of attendance at official meetings (boards, committees, etc), annual reports and plans, curriculum vitae, etc, which were openly available for examination by the Action Researcher and could be used as secondary data to support the whole process.

3.3. Indicators of Success

The fundamental question that we have to set ourselves at the outset of a process of Action Research is how can we present the evidence of success as a sufficient claim to knowledge without being drawn into a fruitless and lengthy debate about the limitations and abstractionism of conceptual forms of theory?

The answer to this question is far from easy and certainly by the end of this piece of Action Research it will still be controversial. That is the nature of qualitative research where there will always be a proportion of subjectivity to provoke discussion in relation to some results and claims for knowledge.

As highlighted in different aspects within this chapter, especially in the description of the research approach (section 3.1), this Action Researcher's claim to knowledge is rooted in the simultaneous qualitative and quantitative instruments of data collection. The analysis of this data is grounded in the ideas of Glaser and Strauss (1967), and Carmines and Zeller (1979), among others, that describe how data could be analysed interactively in order to increase the reliability and validity of a massive amount of unstructured research data.

On the whole, after several questions about How?, What?, Who?, Why?, Where?, and When? The indicators of success of this project will be, for the mobilization phase:

- **The number of participants in the Action Research group;**
- **An Action Research group that is adequately representative of the whole university.**

For the implementation phase:

- **The number of individual Action Research projects in development;**
- **The number of individual Action Research projects successfully completed;**
- **The enlargement of the Action Research group;**
- **The changes to and impacts on individual participants.**

For the continuation phase:

- **Institutional changes/impacts;**
- **The adapted replication of the 3 phases with other ICAF's being responsible.**

Chapter Four

4. Methods

This chapter describes the way that the research was actually conducted. Fig. 4.1 shows how the initial plan was envisaged but unlike the diagrams in the previous chapter, the process is presented in a linear perspective. Each intended phase is plotted against a time-line defined in terms of the years and months over the length of the project. As described in the previous chapter, the whole research process was planned to occur at two different levels: a) Facilitation and b) Action Research. Both levels inevitably occurred concomitantly. The first level represents my actions in facilitating the mobilization (in yellow) of participants to adopt AR, then my actions in the implementation (in red) of support for their own Action Research projects are shown and finally (in green) the actions taken to ensure the continuation of the change through the maintenance and proliferation of the Action Research methodology.

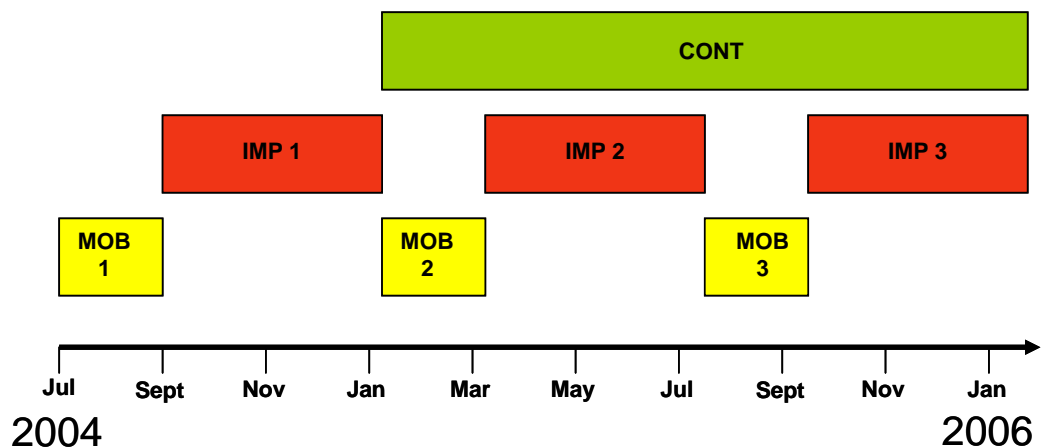


Figure 4.1: Proposed time-line of the plan of action for the facilitation.

Of course, in the event, it did not turn out exactly as initially planned. Several factors, which will be elaborated upon in the chapters that follow, postponed the first mobilization and the first implementation. Adjustments also had to be made to the methodology as it unfolded, so that in the end the facilitation had two, instead of three, implementation phases and the mobilizations 1, 2 and 3 were adjusted in duration as well as in the moment that each one commenced. In other words the whole process underwent adjustments in terms of the time line as presented in Fig. 4.2.

It is also important to emphasize the final degree of overlap of the different phases that had been originally envisaged only to occur in relation to the continuation phase (Fig. 4.1). In the end this overlapping occurred not only between implementation 1 and 2, but also between all three phases from April to June 2005 and from October 2005 to January 2006 when mobilizations 2 and 3 took place.

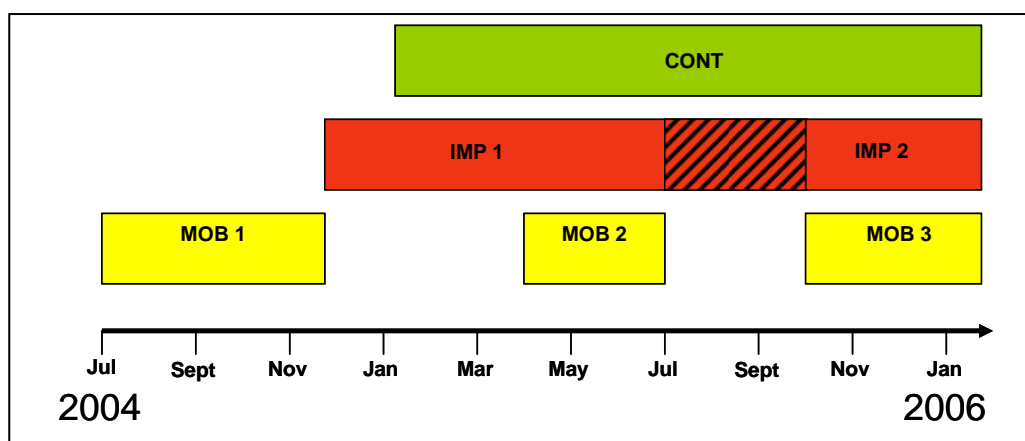


Figure 4.2: Time line of the actions of facilitation as they actually occurred.

During each phase a series of actions were undertaken both at the facilitation level and at the Action Research level. The latter actions were represented by the gathering of information through the use of those six different instruments of data collection presented in the previous chapter (questionnaire, interview, observation, diary, sociogram, and institutional document analysis).

The same time line that is shown in Fig. 4.2, is presented again in Table 4.1, however, on this occasion the overall actions taken, the people involved and the instruments used to collect data are also presented so that it is possible to cross reference the parallel actions of the facilitator and of the Action Researcher. As Table 4.1 and Fig. 4.2 are complementary forms of presentation of the same information, they will need to be used together in order to comprehend the narrative of the facts set out in chapters 5 and 6.

Table 4.1: Timetable of the overall actions taken, people involved and the instruments used in data collection.

Date (Year/Month/Week)	Actions	With Whom	Instrument of data collection
2004: July	-Present the overall project to the Rector and his rival	-Rector and his rival	Observation Diary
2004: Aug. and Sept.	-Present the AR project within the Institute meetings. -Present the AR project within the Professor's Association meetings. -Present the AR project in small groups and individually. -Assessment of presentation	-Professors from each Institute -Professors from all Institutes -Professors that did not showed up previously. -Professors from all	Observation Questionnaire Interview Diary

		Institutes.	
2004: October	-Further presentation of AR project individually. -Training needs assessment. -Training sessions	-Volunteer Professors	Observation Interview Diary Sociogram Institutional documents
2004: November	-Individual Tutorials -Focus group meetings -Assessment of training -Formation of 3 groups -Start of AR projects	-Volunteer Professors	Observation Questionnaire Diary Sociogram
2004: December 2005: Jan. to Dec. 2006: Jan. to Feb.	-AR group meetings -Small AR groups meetings. -Individual Tutorials -Assessment of internal and external perceptions about AR project	-Volunteer Professors -Volunteer Professors -Volunteer Professors -Volunteer and non volunteer Professors	Observation Questionnaire Interview Diary Sociogram Institutional documents
2005: March	Debriefing	-Me and the External agent of Change (critical friend)	Interview Diary
2005: April to July	-2 nd mobilization -Training needs assessment. -Training sessions	-2 nd group of volunteer Professors	Observation Questionnaire Interview Diary Sociogram Institutional documents
2005: August	-Start of the 2 nd implementation	-2 nd group of volunteer Professors	Observation Questionnaire Interview Diary Sociogram Institutional documents
2005: Oct. to Dec. 2006: Jan. and Feb.	- Start of the 3 rd mobilization	- All former volunteers and the new volunteers	Observation Interview Diary Sociogram Institutional documents

4.1. Information Gathering procedures

4.1.1. Observation

In line with the description of this instrument in chapter 3, there were two kinds of observations conducted during this project. The unstructured observation was used on a daily basis to follow the steps of each participant and non-participant professor in order to provide insights into unexpected or spontaneous behaviour. Complementarily, the structured observations were used to search for expected behaviours during meetings, debriefing sessions, tutorials, training, classroom and other programmed activities when the participant professor knew that I was present as an observer.

As the name suggest, these structured observations were made using a previously prepared agenda of characteristics, expressions, attitudes, etc. that were identified and recorded with the help of a schedule (see Appendix 'P').

4.1.2. *Diary*

Together with the observation, the personal diary was the instrument of data collection used most frequently throughout the project. In fact, the diary was the written prose representation of the observations made. In it I recorded not only observed behaviours, but also the written expression of my feelings throughout the different moments of my journey of learning about being an internal agent of change.

Accordingly, the diary was completed daily and this was followed with the utmost rigour. Each participant professor represented one 'chapter' of the daily diary so that it was possible to analyse separately their responses to the same observed aspect.

The diary was subjected to the scrutiny of the participant professors during the individual tutorials and group meetings. This measure was intended to reinforce the openness and transparency of my actions and to provide verification. Also it was another way to provide support to each participant Action Researcher regarding their own diary keeping.

4.1.3. *Questionnaires*

Altogether eight questionnaires were used during this project (all presented in Appendix 'A' to 'H'). Nevertheless, some of them were used more than once. For instance, the one shown in Appendix 'A' was used at every reconstruction of the sociograms. Fundamentally, questionnaires were used to analyse and assess different aspects of the project quantitatively, for example, to assess the training programme (Appendix 'B'), to assess the volunteers' willingness (Appendix 'C'), to identify the reasons for the decision not to volunteer of certain professors (Appendix 'D'), to assess the volunteers through the eyes of their students (Appendix 'E'), to capture the impressions of the students regarding the institutional process of professor's assessment (Appendix 'F'), to assess the institutional impact of the project (Appendix 'G'), and finally to assess the development and achievements of each volunteer (Appendix 'H').

4.1.4. *Interviews*

As with the questionnaires, the interviews were conducted during specific moments of the project. However, in contrast to the questionnaires, this instrument of data collection produced qualitative data about various aspects of the project. In

most cases, this data was complementary to that collected through the questionnaires and therefore could be used as part of the triangulation process²⁶.

Together with the sociograms, the interviews were used to analyse the overall development of the participants in its widest sense. This was possible by using interviews during tutorials (Appendices 'I' and 'J') and individual meetings (Appendices 'K', 'L' and 'M'). All interviews were tape recorded and then transcribed in the original language (Portuguese).

4.1.5. Sociogram

The sociogram was originally planned to be used only in the implementation phase. However, the use of this instrument was brought forward in order to provide support to the training stage of the first mobilization phase. In the end, four sociograms were produced during the course of the whole project (see Chapter 5) and provide a clear picture of the development of the group in terms of mutual interests, conflicts and, fundamentally, the changes from the initial pattern of isolation that is recognised by some thinkers (presented in the introduction chapter) as one major cause of both the problems of the university system and the incapacity to solve those problems.

4.1.6. Institutional Documents

The great majority of institutional documents are represented by public documents (CV's for example), but they may also be documents regarding institutional assessments, minutes and reports from the different university board meetings and newsletters. I started to collect them as soon as the first group of participants was established and continued to do so until the end of the research. I used them as sources of information that could represent relevant events occurring at the institution and via the minutes of a meeting, to overcome those many occasions when I was simply unable to be present, and access the particular highlighting of a professor's attitude. In addition, some information was available regarding the profile of those participant professors, such as their academic qualifications, number of participations in board meetings and positions adopted in relation to institutional procedures and policy.

4.2. Principles Required

The Action Research approach requires more than just a conjunction of instruments for data collection and strategies to organise both structured and non-

²⁶ This can be easily recognised by the clear relationship between the interview schedules shown in the Appendices 'M' and 'N', and the questionnaires in the Appendices 'C' and 'D'.

structured data. In order to reach the aims and objectives proposed in the introduction and to ensure the reliability and validity of my claims and the potential generalisability of my findings, this project had to be rooted first of all according to ethical principles.

4.2.1. Ethics

Since the process was initiated outside the normal working of the institution it was necessary to gain consent and support from the Rector. However, since the institution is made up of factions that vie for control in periodic elections it was also essential to gain support from the incumbent Rector's rival, as the processes of change that were being initiated needed to be viewed by these indigenous political processes to be as neutral as possible in respect to the existing power structures. Since the first year of the research project was also to be an election year discussions were held at the very outset with both candidates.

Another ethical consideration was to define those who were possible participants of this project. Due to the institutional characteristics, described in the introduction (section 1.3 and 1.4), mainly in regard to power relationships, I decided to start the process by calling for the participation of volunteers. Nevertheless, voluntary participation is just one of several ethical issues to address²⁷. As an ICAF I had to cope with some ethical issues that were particularly important for the success of the research. Some of these are represented by the answers to the following questions:

- **How do I give equal opportunities to everybody to take part?**

To respond to this concern I presented the research project to all UFRA professors and then called for volunteers instead of inviting individuals to take part, although the exclusion of the senior managers during the first 3 cycles of the project was justified by other ethical and practical considerations.

- **What are the risks to those participants of their knowing or not knowing what information is being recorded or collected by me?**

- **What should I tell and what should I store?**

The primary risk for participants would be conflict between me and the participants or amongst themselves during the research, generated by misunderstandings or chains of whispers. To minimise this risk required the utmost transparency during the data collection conducted by me as an ICAF, as was the process of sharing the data that was recorded, including my own diary entries. During the data gathering process each participant had access only to those data

²⁷ See for instance Winkler (2003)

regarding their own views and performance. The purpose of this strategy was also to avoid possible conflict or any other disturbance within the community of practice.

- **Who else will have access to the data and debrief me to provide multiple perspectives and then to establish validity?**

As part of the process of validation of my findings, an external observer and a critical friend had to debrief me from time to time. Nonetheless, this person had to be both entirely acceptable to the participants as he was to me.

- **What are the political implications of the way I focus my story?**

The implications of this research were carefully considered in relation to the political context of UFRA. For this reason it was established that the research project would be presented first and foremost to the Rector and his political rival in order to gain consent from them both. Nevertheless, the findings that emerged had to be authentic and uninfluenced by any political sensitivities.

- **How would I protect myself from the temptation to see what I hoped to see?**

This is essentially the mirror image of the previous question. It touches upon the possible bias that the researcher can introduce in the interpretation and selection of the data, and was minimised by the strategy of having my data constantly scrutinized by the participants and, also, through the constant reflective practice adopted.

Finally, as suggested by Smith (1990), all Action Researchers must ask and be concerned about one golden ethical question:

- **What are the possible consequences of this research?**

Thus, before taking any action at all, as an Action Researcher I put myself in the shoes of the participants. To think: "Would I, as a volunteer, want this research to be done?" No answer other than 'YES' could be acceptable in order to start the process. Most importantly, all participant professors had to answer this question in the same way as I did in respect of their own AR projects. In the end, we all accepted the possible implications and consequences of taking part in this research, and an informal agreement was made by the time that the last interview following the group presentations was conducted (section 3.1.1.1). The purpose of this agreement was to clarify the aims of this project and to recognise the possible consequences, for example the changes that might occur in the power relationships between the individual participants and the wider organization.

As all questions were answered positively and ethical consent was achieved from the institution through the Rector and his rival, as well as from each professor involved as a participant, the project could then move forward.

4.2.2. Validity and Reliability

A review of the Action Research literature²⁸ shows that AR presents some threats to the value of the knowledge that emerges from it, namely, Uncontrollability, Subjectivity and Contingency (Kock 2004). These threats can potentially lead to doubt over the use of Action Research in professional development and institutional change. In experimental research, on the one hand, the variables are manipulated over time, associated numeric data is collected and causal or correlation models are tested through standardised statistical analysis procedures. In other words the researcher has strong control over the environment being observed. In Action Research, on the other hand, the researcher studies a small part of the organization in depth, using both quantitative and qualitative methods such as participant observation and interviews as the main data collection approaches to generate academic knowledge about their own practice.

Throughout the whole process of this Action Research I endeavoured to ensure the validity²⁹ of my claims to knowledge in four different ways. Firstly, I ensured the connection and corroboration of the different instruments of data collection (Triangulation). Secondly, I subjected the process, the findings and my accounts of the research to critical reflection and review by requesting participants to evaluate my effectiveness, and to comment on the veracity of my accounts, ensuring rigour in my use of interviews, questionnaires, diary and observations. Thirdly, I worked with my mentor as a critical friend responsible for debriefing me systematically and thereby introducing further objectivity in the inductive processes. Finally, and importantly, I ensured that my research was accessible to a variety of audiences, offering them for public debate and criticism.

To further ensure triangulation, I have also used multiple data sources (participants, other academic staff, students, technicians, documents, etc) to reveal the complexity and uniqueness of the beliefs, experiences and values of the practitioners.

As Winter (2002, p.145) observed: *“The epistemological interest of narrative research lies in the personal and the particular.... and is driven by the belief that our personal insights contribute to the general knowledge of the human condition”*. Therefore, as a narrator, I explore and retell the meanings of the participants' experience as seen from the standpoint of an ICAF, always looking for clues and possibilities about how the story could unfold and end.

²⁸ See for instance Susman & Evered (1978); McTaggart (1991); Orlikowski & Baroudi (1991); Elden & Chisholm (1993); Gustavsen (1993); Galliers (1995); Avison, Baskerville & Myers (2001); Kock (2004).

²⁹ See for example Whetten (1989); Coulter (2002); Herr & Anderson (2005).

Altogether, these four measures counteract the negative effects of the threats for reliability and validity mentioned above. In addition, based on the ideas of Glaser and Strauss (1967), described as Grounded Theory, the data were analysed interactively in order to increase the reliability of the massive amount of unstructured research data (Carmines & Zeller 1979). Thus, by the review of the data made by all involved in the project I linked the independent (the Action Researcher) and dependent variables (the participants) and searched for new variables at all stages and phases of the process, trying to foster objective data analysis and ensure that in the end I could justify a claim to any emerging theoretical model. Such a model would be a high level representation of the main findings of this research, and be used to understand different pieces of the intermediate research data (see Checkland & Scholes 2001).

Thus, the dependent variables (participants) were used as stand points with which a set of interrelated variables and effects can be associated (Miles & Huberman 1994). This process relies heavily on data tabulation (from the interviews, observations and the diaries) and to some extent on statistical analysis techniques (from questionnaires and sociograms).

4.2.3. Generalisability

The lack of control and the contingency threats come from the fact that the Action Researcher's degree of control over the environment being researched and the research subject is always incomplete. This incompleteness is exacerbated when the relationship between researcher and subjects begins with the AR process and has no prior history (i.e. outsider Action Researcher). As an ICAF working with a group of volunteer professors I could analyse the impact of the introduction and the use of AR for different professors in different contexts, which certainly increased the external validity of my findings. Consequently, the enlargement of the Action Researcher group, through the second and third mobilizations, increased the number of contexts from which research data could be obtained.

Although the detailed descriptions of participants' work, alone, do not allow for generalisations about the way participants define their experiences, it is the narrative nature of the study that allows insights to be transferred from one context to the next³⁰ and then to ascertain whether an observed trend is or is not due to chance (Gregory & Ward 1974; Drew & Hardman 1985; Creswell 1994).

In the end, the generalisability or representativeness of my findings would be achieved because the Action Research group proved to be a fair representative

³⁰ See Whetten 1989; McKernan 1994; Magyar & Mayer 1998; Feldman 1999; McMahon 1999; Llorens 2001; Coulter 2002; Winter 2002; Taylor 2003; Burchell & Dyson 2005.

group of UFRA's 'population' of professors (Bowerman & O'Connell 2003). However, as posed before, the notion of sample is absolutely inappropriate for this kind of process insofar as the real sample is me, the ICAF, and the number of volunteer participants will be determined by my actions, which will constitute and be part of my findings and capacity to facilitate the process. Finally, as an unbiased response is impossible to obtain within this kind of process, the data collection methodology (presented previously in section 3.2.2) must consider effective validation techniques such as those presented above to enhance the representativeness and ultimately the generalisability of any theoretical model for the use of AR as a means to promote professional development and institutional change within the context of a Rural University in Brazil.

Chapter Five

5. Results and Analysis

Writing up Action Research is not an easy process (Huges, Denley & Whitehead 1998). In order to make sense of the experiences and data provided by the methodology and methods outlined in the previous two chapters, a structure to the narrative needs to be followed. This suggests that the best way to present this chapter is firstly to carry out an analysis of the professor participants involved, and then to describe and analyse each phase of the introduction of AR in a chronological sequence. That is, in the first section I will analyse the professors involved in this process as volunteers and non-volunteers. This will include a description of their positions in terms of behaviour and attitudes within the university in a typological framework. Also, some analysis regarding the characteristics of those who volunteered and those who did not will be presented. Then, the next and longest sections will present an analysis of the facilitation of the three phases of this project, namely, mobilization, implementation and continuation. In this analysis I will set out the perceptions underpinning my actions, and follow this by an explanation of the actions as they unfolded as evidenced from the data. I will then outline the lessons learned. Finally, in the third section I will explore some of the wider organizational-level responses to the project. These responses are presented according to the viewpoint of students, the assessment committee and the course coordinators.

5.1. *Analysis of the Participants*

5.1.1. *The Professors*

The whole process of introduction and adoption of Action Research necessarily had to consider the administrative and cultural model of UFRA, which is very complex, as described in section 1.2. My own experience as a professor from UFRA and my observations during the past 5 years suggest that the institutional culture has created parallel norms based mainly on a sense of nepotism, corporatism and self-protection. The ultimate consequence of such an environment is to define patterns of behaviour that are similar to those presented by Ball (1987) as: Officials (Those professors politically involved); Activists (Those professors intensively involved in the university but avoiding political involvement); Attentives (Those professors aware but not engaged with the university issues and only

involved in 'hot issues'); and Apathetics (Those professors marginal in the university and never involved in deep discussions).

I have found the work of Ball helpful in understanding and interpreting the professors' role at UFRA. Inspired by those patterns of behaviour described by Ball (1987), my general observations and my informal discussions and interviews have suggested that the role-played and a structural position can be justifiably assigned to any particular professor at UFRA, determined according to three main criteria: a) Relationship, b) Loyalty, and c) Cognitive Skill.

The first criterion reflects the degree of 'harmonious relationship' that a particular professor has with those professors in the highest level of the hierarchical management structure. Loyalty evidences, on the one hand, the manager's demands for an 'unreserved commitment' to them and, on the other hand, the 'institutional commitment' that a professor shows in relation to the institution *per se* (mission and vision). Similarly, cognitive skill also has two different interpretations: firstly, it is related to the cognitive skill that each professor has regarding their 'specific subject' area and, secondly, the cognitive skill that is associated with 'managerial' skills (or emotional intelligence (Goleman 1995)).

Although Colombo (2004, p.65) emphasise that "... *cognitive skill is crucial for the quality in the management of the education institutions...*", it is not the reality that I have observed within UFRA. In fact, the hierarchical position at UFRA, according to my observation, is best defined according to the following sequence: Relationship–Loyalty–Cognitive Skill.

Thus, based on all these factors I have created my own version of Ball's categorisation, so that professors at UFRA seem to fall into eight archetypes presented in Table 5.1 and described next.

The 'Top Managers' signify those, temporarily³¹ in the core of the decision-making and decision-taking processes. They are closely related (sometimes as relatives), loyal among themselves and cognitively skilful, but not necessarily in both the dimensions presented above.

The 'Aide' signifies one closely related to professors from the first archetype and loyal as well. However, their lack of managerial cognitive skill puts them in a position to handle only 'confidential matters', like internal political issues.

The third archetype, the 'Challenger' signifies those professors who, despite their close relationship with the managers and their cognitive skill (mainly subject specific), are considered by the top managers as presenting a lack of loyalty (to the manager), that can also be interpreted as a lack of blind obedience. This puts those

³¹ I will come back to this term later

professors in a position of direct confrontation with the manager. As a result, their opinions are not usually considered.

Table 5.1: Hierarchical position, main characteristics and political situation of professors from UFRA.

Archetype	Main Characteristic	Political Situation
Top Manager	In charge of the management	Leaders
Aide	In charge of internal political issues	Loyal to the leaders and second in command
Challenger	In charge of technical sectors	Accepted by the leaders
Adherent	In charge of bureaucratic sectors	Accepted by the leaders
Partner	Eventually in charge of managerial positions	Undefined
Weathercock	Opportunistic and rarely in charge of managerial positions	Always close to the leader group
Antagonist	Relegated from the managerial process	Opposition to the leader group
Peripheral	Marginalised in the managerial process	Undefined

Following this hierarchical distribution the next is the ‘Adherent’ who is characterised by their close relationship with the ‘Top Manager’ and also by their low levels of loyalty (to the manager and institution) and cognitive skill (mainly managerial). According to my observations and the information collected from institutional documents, such as memos giving the designation of functions, these professors are usually a source of problems for managers, so that they try to hide them behind some sort of bureaucratic position.

These first four archetypes represent those professors that belong to the same political group, and who are hierarchically above other professors even those more institutionally committed and even more skilful, as I will show below.

The fifth archetype is the ‘Partner’ signifying a key person inside the institution. Though not closely related to the managers, these professors are heavily relied upon by the managers and are sometimes their right hands in relation to decision-making processes due to their institutional loyalty and cognitive managerial

skill. These professors represent the link between the different political groups as they are not closely allied to any of them whilst their loyalty and managerial capacity are widely recognised.

The next archetype, called the 'Weathercock', signifies those professors who, in the eyes of the managers, are to some extent, loyal to them, therefore are trustworthy. However, they are not closely related to the managers neither do they have cognitive skill; for this reason they are only placed by the top managers to undertake petty roles such as monitoring the next archetype (Antagonist).

These latter professors, though showing opportunistic behaviour, represent a great threat to institutional stability as their volatile position tends to constantly change the power balance. Therefore, they are not to be confused with the previous archetype. In my diary this concern was recorded with these words:

"I cannot be naive and believe that every one is interested in the development of UFRA.... Is it possible that I will be used during this process by those opportunists?...I definitely need to be aware of the real intention from those who get involved..... Is the strategy of asking for volunteers capable of avoiding the opportunists? Do I want it? (Diary entry, Aug. 2004)

The 'Antagonist', is the archetype that represents all professors that are recognised as cognitively skilful (in both senses), but due to their lack of loyalty to the current managers as well as their distant relationship with the temporarily dominant political group, are acknowledged as rivals in the political dispute. In other words, they are responsible for the political opposition within the university. This archetype of professor, in this political scenario, represents a large number of professors because, eventually, when a changeover in the political command of the university happens, the members of this archetype will split into those first four archetypes mentioned above (Top Manager; Aide; Challenger; and Adherent).

Finally, there is the 'Peripheral' archetype, which signifies those professors considered cognitively unskilful (mainly in the managerial dimension), distantly related, and unable to show their loyalty to either political group or even to the institution. This group of professors is constantly excluded from all managerial and decision processes; in other words, this group is absolutely marginalised in the decision-making/taking process.

Into this context, as an insider change agent/facilitator I considered myself - and hoped to be identified as - a 'Partner' professor. Nevertheless, that position had to be perceived by all political groups and this was partially achieved when I

presented the project to the Rector and his rival (this aspect will be explored in more detail in the next section).

5.1.1.1. The Rector and his rival

As envisaged at the planning stage, the first presentation was made to the Rector and his rival separately in their own offices. The agenda for these presentations was to show the overall concept of promoting institutional change through the professional development of the academic staff by encouraging them to undertake Action Research. The importance of self-selection of participants was also emphasised, as was the institutional characteristic of the change process in regard to the political backdrop and the forthcoming elections. Their responses were listened too, but not challenged. A document setting out the project plan was handed over as an aide memoir. The ethical position of the facilitator was agreed and overall consent was achieved.

In my diary I recorded this process of gaining momentum and its consequences:

"I am confident that the Rector understood the process ... but I am afraid his rival just accepted it as something that he can not handle at this time but which seems to be harmless" (Diary entry, Aug 2004).

This diary entry was highly influenced by the observations made during the presentations. At that time I was using a structured observation looking for signals in body language that could illustrate the feelings behind the words. Also, this observation looked for key words that could have demonstrated evasiveness or lack of attention to the presentation and the presenter and are set out in Table 5.2.

I had to recognise that it is always far too easy to say yes, in the first instance, to a new idea as in the early development stages its impact is likely to be minimal (Kanter 1984). It is equally important to highlight that this project could not have gone forward unless I had established this position.

In the end, my position as a 'Partner' professor was secured from both sides and I could now move forward in the direction of the three group presentations and the call for volunteers as described in section 5.2

Table 5.2: Observations made during the presentation to the Rector and his rival.

Aspect observed	Whom was observed	
	Rector	Rector's Rival
Eye contact	Constant	tedious
Number of questions made	more than 10	2
Up and downs' in the chair	None	more than 10
Answer the mobile phone	None	2
Offer of help	Yes	No
Read the document immediately	Yes	Yes
"Sorry! Say that again!"	None	4
Total time spent	45 minutes	20 minutes

5.2. Analysis of the Facilitation Process

5.2.1. Mobilization: First Cycle

Based on the literature review and my own experience, I arrived at the perception that in order to have success: a) The mobilization must be carried out to involve a maximum number of professors; b) The opportunity to be involved must be offered to all professors; c) The bias of the political environment must be avoided; d) Those involved should be representative of the whole university; e) The mobilization must foster the curiosity and the enthusiasm of professors; and f) The professors involved must do so voluntarily.

5.2.1.1. The presentations

After the presentations made to the Rector and his rival, the second stage of presentations was started. As described in the previous two chapters, this stage should have been made up of three presentations, one within each Institute. Nevertheless, it did not go forward in the way envisaged.

The institute meetings were poorly attended. As recorded in the list of attendance less than 10% of the overall number of professors eligible showed up. So a similar presentation was made to a meeting of the professors' association. But, even so, only some 40% of the population of professors were contacted by these presentations. This was too few to ensure the equal opportunity principle in recruiting participants (Moates *et al.* 2005).

At this point a series of small group and individual meetings were organised so that, in the end, some 87% of professors had been contacted, which was considered to be an adequate attempt to provide access to all. Looking at the history of attendance at official meetings of the university reassured me on this point because in the previous two years (according to the official list of attendances) at least, this has been the pattern (10% attendance). On the other hand, I realised that to achieve the objectives of the mobilization phase I had had to put much more effort in than I had predicted in my planning.

The presentations themselves focussed upon selling the concept of Action Research as a tool for professional development (Burbank & Kauchak 2003), stimulating curiosity (Evans 1999), and appealing to what Maslow (1968) had referred to as 'Self-Actualization' as the motivator for further involvement. In order to gain external validation for the method that had been introduced, a paper reviewing the practice of AR in the South of Brazil by Engel (2000) was distributed and only at the end was the overall research project mentioned and a call for volunteers made.

As a result of these presentations 37 professors (Table 5.3) expressed interest in engaging as volunteers and, as observed, amongst them the majority did so primarily at the meeting of the Association.

5.2.1.2. Volunteers and Non-volunteers

In the first instance I would like to present some characteristics of these professors who took a step further and decided to volunteer and those who did not and relate these to the archetypes described above. Thus, the result of the series of presentations was the appearance of 37 volunteers (Table 5.3) from amongst the 126 professors of UFRA. This number was far bigger than I was expecting and also bigger than I felt that I could handle during the training stage. But, ultimately, the most important question at this moment was: Who are they?

Table 5.3: Profile of volunteers at the recruitment stage of first Mobilization.

Phase/Stage	Volunteers	Gender		Institutes of UFRA			Years as professor		
		Men	Women	ICA	ISPA	ISARH	>15	5 to 14	<5
Mobilization/ Recruitment	37	22 (59%)	15 (41%)	17 (46%)	8 (22%)	12 (32%)	17 (46%)	9 (24%)	11 (30%)

Table 5.3 above shows that the answer to the last question could simply be 'a fair representation of the institution', as long as those numbers related to the percentage of professors in terms of the three characteristics observed (gender, institutes and service history). However, as important as their representativeness was, their distribution was also analysed in regard to their allocation to the

archetypes presented before. Only two archetypes were not represented amongst the 37 volunteers, namely, top manager and peripheral professor. The non-appearance of the first is explained by the methodological decision to discourage the participation of the managers. In regard to the second type, this was not planned for but it was expected due to their marginalized position within the university context.

Representation of the other archetypes showed the following distribution: Aide (6); Challenger (5); Adherent (4); Partner (5); Weathercock (4) and Antagonist Professor (13). As can clearly be seen both political sides were represented amongst the volunteers with a relative balance: 11 from the dominant political group, represented by the aide and challenger professors and 13 from the oppositional group that were represented by the antagonist professors.

This engagement of a group of professors that was representative of the whole university whose members did not see the process as promoted by one or other political group, represents an important indicator of success of the first stage of mobilization, as long as the main objective was to provide equal opportunity to all professors.

As pointed out by Moates *et al* (2005), there is always a desire to garner involvement from a wider segment of the organization. However, I knew that the number of volunteers in this project would reflect the common pattern found across different kinds of organizations when the purpose is to work with volunteers. Thus, the question posed against the objective of institution-wide change had been: **Can this group of volunteers really be representative of UFRA?**

In the end, the volunteers represented a fair approximation of the sort of number and balance that I had been concerned to achieve (Tables 5.3 & 5.4). For example, all institutes were very well represented and the group represented a fair gender balance that is in accordance with the balance found in the whole institution. Most importantly, this group were representative in relation to the degree of their experience as shown in Table 5.4 as 'Years as a professor'. I am stressing this point because according to some professors:

“... we have to invest in the new professors ... you can not teach new tricks to an old dog ... we are tired...” (Non-volunteer professor - Extract from interview, Sept. 2004).

Table 5.4: Number and profile of volunteers at the first Mobilization.

Phase/Stage	Volunteers	Gender		Institutes of UFRA			Years as professor		
		Men	Women	ICA	ISPA	ISARH	>15	5 to 14	<5
Mobilization/ Recruitment	37	22 (59%)	15 (41%)	17 (46%)	8 (22%)	12 (32%)	17 (46%)	9 (24%)	11 (30%)
Mobilization/ Training	20	14 (70%)	6 (30%)	8 (40%)	6 (30%)	6 (30%)	9 (45%)	3 (15%)	8 (40%)

Although this can often be taken as true for some professors, I could observe that there were several 'old dogs' keen to be engaged with new challenges, as can be noted by the 17 professors amongst the 37 initial volunteers (Tables 5.3 & 5.4). Nevertheless, this kind of comment extracted from the interviews conducted after the presentations shows, at least, that it should be more difficult for a younger professor to provoke change in values with their AR projects amongst professors with more 'experience', than for a professor within the same age group. Thus, looking ahead to the continuation phase it was vital to have representativeness especially regarding these three castes of professors formed in relation to their years as professors.

Although the overall balance achieved could be interpreted as the product of serendipity and not some conscious act, I was aware that it could not be achieved in any other way without undermining the principle of voluntary participation.

Nevertheless at this point 37 volunteers were far too many to be handled by me during the process of implementation so that the training stage of this first cycle of mobilization had to include some form of selection. Since the main concern at this stage was to retain only those truly committed, as I recorded in my diary:

"I fear that some of the professors had volunteered out of a personal commitment to me ... I am concern about this strategy for Mobilization because I am seeing them as friends instead of participants, especially because some had used during the interview the statement: How can I help you? (Diary entry, Sept. 2004)"

Thus, the self-selection process took the form of a further presentation to the 37 volunteers concerning the details of what was likely to lie ahead during the implementation phase. With this strategy I was hoping to retain only those with more tenacity. These presentations were followed by the single and very objective question: 'Are you still interested in being a volunteer?'. This process resulted in 17 withdrawing. Nevertheless, as before, the balance that I was seeking within the group was more or less maintained as can be seen in Table 5.4.

However, 20 was still more than I had considered the optimum number for the demands of the implementation phase of the project, but it was adequate to start the training session particularly as, based on patterns demonstrated in other work with volunteers, I felt that the final stage of training would also result in some further reduction in participant numbers (see Table 5.8).

As outlined before, my concern at this point was to ensure that those engaged were in that position due to their tenacity and curiosity, and not due to their friendship with me. In order to understand this aspect of the decision to volunteer

made by professors, I delivered two questionnaires and conducted two interviews. Table 5.5 sets out the positive and negative perceptions from volunteers and non-volunteers, gathered through the questionnaire, in relation to the presentations used to introduce the AR project and call for volunteers.

Table 5.5: Aspects of the presentation about the Action Research project.

VOLUNTEERS	NON-VOLUNTEERS
POSITIVE ASPECTS OF THE PRESENTATION	POSITIVE ASPECTS OF THE PRESENTATION
<ul style="list-style-type: none"> ▪ Emphasis on the importance of this work ▪ Emphasis on the individual rewards ▪ Objectivity of the presentation ▪ Showed time flexibility ▪ Trust in the Facilitator ▪ Self-motivation by the theme ▪ Freedom of choice to engage or not ▪ Complementary literature delivered ▪ The individual approach 	<ul style="list-style-type: none"> ▪ Innovatory characteristics of the project ▪ Provoked my curiosity ▪ Objectivity of the presentation ▪ Freedom of choice to engage or not ▪ Complementary literature delivered ▪ The individual approach ▪ Objectivity of the project
NEGATIVE ASPECTS OF THE PRESENTATION	NEGATIVE ASPECTS OF THE PRESENTATION
<ul style="list-style-type: none"> ▪ Doubts about the role that should be developed by volunteers 	<ul style="list-style-type: none"> ▪ Doubts about the role that should be developed by volunteers ▪ The moment when it was conducted (time) ▪ The work methodology ▪ The theme complexity ▪ The institutional rewards was not clear ▪ Lack of a concrete objective

Although, I could not distinguish different patterns in my behaviour during the presentations, these results demonstrate how differently volunteers and non-volunteers had perceived them. Clearly, it was seen, on the one hand, as innovatory and provocative by the non-volunteers, and, on the other hand, as important and worthy by the volunteers. So, although I had successfully been able to present the project in an innovatory and provocative way, it was rather the sense of value and the perception of the importance for the individual or the organization that was crucial for motivating professors to take part in a process of change. Melrose and Reid (2000), working with what they called ‘The Daisy Model’ (see section 2.2), although they did not explain exactly how the groups had been constituted, designated the participants of their Action Research project as ‘enthusiasts’.

However, what can be clearly seen from the responses of the non-volunteers is that to some extent they are 'enthusiasts' too, but certainly not enough to get involved as volunteers.

The 'trust in the facilitator' or 'friendship', as recorded in my diary and interviews, can be recognized as a major dilemma for me as an ICAF at this stage of the project. That is, I positively could not pretend to be an outsider and at the same time I should be able to be a distant observer. In simple terms I needed to have their trust, as they needed to trust each other in the course of the project. However, this could not come from any feeling of friendship otherwise, instead of avoiding the threat of subjectivity (see Kock 2004 in section 2.2.5) in my findings, I would be fostering this threat by accepting in the group of professors those who were likely to be adherents to my own views and principles. Thus, I attempted to retain those that were really motivated to embark on the project and to discourage the participation of those who were engaged purely based on their personal relationship with me.

The similarities amongst volunteers and non-volunteers were also an object for my reflection as recorded in my diary:

"At first look it is almost impossible to distinguish volunteers' and non-volunteers' impressions from the presentation in relation to the positive aspects of the presentation. I think it is an indication that there are several enthusiasts amongst those committed that I am trying to engage in this process." (Diary entry, Aug. 2004).

In addition, the data presented in Table 5.5 also show that both volunteers and non-volunteers strongly agreed that the presentations had been delivered to emphasise that the possible rewards would be mainly for the individual. Nevertheless, for those non-volunteers the aspect of 'time', presented in Table 5.6, was more important in their final decision, which was re-stated during the interviews by statements such as:

"Look Marcel, I know that we need to pay more attention about teaching. However, you know that I am really busy nowadays. I am in charge of 3 research projects and even asking for a substitute to help me with teaching" (Extract from an interview with a non-volunteer, Sep. 2004).³²

Nevertheless, looking at the curriculum and the annual evaluation report of the volunteers I could verify that all 37 volunteers were engaged in activities as time consuming as those mentioned by non-volunteers. This means that 'time' is a word used to hide other meanings. For instance, there is the need for more than just

³² An example of one interview is presented in the Appendix 'R'

enthusiasm in order to be engaged in the long run with a project that is considered innovatory. It's needs tenacity.

Table 5.6: Reasons for being or not being a volunteer

VOLUNTEERS	NON VOLUNTEERS
THE MAIN FACTOR TO BE A VOLUNTEER	THE MAIN FACTOR TO NOT BE A VOLUNTEER
<ul style="list-style-type: none"> ▪ 70% - Improvement of my own performance; ▪ 52% - Motivation by the theme; ▪ 35% - Availability of time; ▪ 30% - To continue the teaching methodology course. 	<ul style="list-style-type: none"> ▪ 85% - Time ▪ 20% - Do not believe in that methodology ▪ 15% - More duties
WHICH FACTOR COULD MAKE YOU NOT TO BE A VOLUNTEER?	WHICH FACTOR COULD MAKE YOU TO BE A VOLUNTEER?
<ul style="list-style-type: none"> ▪ 100% - Time 	<ul style="list-style-type: none"> ▪ 60% - Individual rewards ▪ 35% - Curiosity ▪ 30% - The personal relationship with the facilitator
HOW WOULD YOU PRESENT THIS PROJECT?	HOW WOULD YOU PRESENT THIS PROJECT?
<ul style="list-style-type: none"> ▪ 65% - Problems X Solutions ▪ 60% - Emphasis on the institutional relevance ▪ 50% - Emphasis on the individual reward 	<ul style="list-style-type: none"> ▪ 85% - During the academic break ▪ 75% - Emphasis on the individual motivation and rewards ▪ 50% - To present for senior managers

Additionally, throughout the process of training I had to encourage discussions among the participants about the meaning of AR regarding their academic duties and individual and institutional rewards so that the sense of a community of practice would overcome the initial sense of friendship and curiosity.

In my diary I record this moment in this way:

“I was right!! Amongst those 17 that withdraw were my friends who would like to “help me”. As an ICAF I could not avoid this kind of behaviour...I am still concerned because one of my best friends is still in the group. How can I be sure that they are involved due to the AR project and not because of me instead?” (Diary entry, Sept. 2004)

The answer to the question asked in my diary could not be provided at this stage of the process. However, the response to it should pass through a reflection

upon the context of the Brazilian Higher Education system. In this regard, the lack of motivation has been quoted (as addressed in Chapters 1 & 2) as a common characteristic among professors at Brazilian universities, whereas motivation is among those aspects considered as pivotal in determining willingness to be a volunteer.

I could present several reasons for this lack of motivation. Nevertheless, the current lack of a policy to recognize teaching contribution, is the major reason mentioned by the non-volunteers (100%) and even by some (45%) volunteers during interview (Sept. 2004) following the questionnaire, when they asked me: *“How will this project provide better working conditions?”* and *“Can I earn more money from it?”* It is important to clarify that these are not questions from persons that only pay attention to money. However, in the last 15 years the university system has strongly rewarded the research aspect of academic duties whereas *“the teaching has become an obligation”* (Diary entry, Oct. 2004). Indeed there are no mechanisms to assess the teaching process in terms of quality and, despite some isolated ‘small prizes’ for quality, the teaching process within the university has only been evaluated by the number of hours spent in the classroom (as demonstrated by the annual evaluation report presented by all professors). Thus, probably for these reasons only 55% of those 37 initial volunteers and none of the non-volunteers (Table 5.5) recorded being self-motivated by the theme as a positive aspect of the presentations.

Although MEC had created a reward related to teaching activity (Teaching Stimulus Reward - GED) in 1998, it is still only based on the number of hours in the classroom as well as all others activities related above. Incidentally, Ligabue (2005, p 69), for instance, presents an article where several rewards for professors are listed. Only one of these relates to Higher Education, even though it is for just one lucky professor among all those who are working in more than 2,000 universities in Brazil.

As a Rural university, UFRA has professors highly trained and competent in the specific subject matter of agrarian sciences with few or none trained in teaching methodologies, curriculum development, etc as evidenced through the CV analysis. In other words, such professors are hired based on their knowledge and expertise in subject specific research matters, publications, etc. Thus, the negative aspects of the presentation reported by professors and presented in Table 5.5- *Doubts about the role that should be developed by volunteers (volunteers and non-volunteers); Work methodology and the theme complexity (non volunteers)* – cross checked through the interview that was conducted afterwards - showed that there was an initial

resistance to be overcome, particularised as the positivist approach (Parker 1997) in which they had been trained and are familiar with due to the years of working according to just this paradigm of research. Indeed thinking back to the time before I embarked upon this study, I can say that I too was relatively unaware of the untenable assumptions behind my objectivist view of the world.

There was also a second source of resistance to be overcome. During the interviews 'time' was cited on several occasions as a barrier to their engagement. In relation to the meaning of 'time', it was clear that this is more about priorities than about availability itself. For instance, 35% of the volunteers had reported that they had volunteered because of availability of time. Additionally, to illustrate this prioritisation I must reiterate that they had also mentioned that all activities regarding academic staff duties, research, extension and administration, offer some sort of reward - increase in salary, better working conditions, more power, more respect from other professors, etc - whereas teaching is considered an obligation and measured only by the quantity of hours in class. Therefore, I concluded that only some of the volunteers had perceived the possibility of reward for teaching through this AR project and yet were keen to take the risk of being involved. This number is shown by the withdrawal of those 17 volunteers before the training session.

Probably, by not providing responses or solutions to questions (motives) as well as by not promising rewards nor involving the senior managers, as mentioned by the non-volunteers (Table 5.6), I might have lost the opportunity to have other professors as volunteers. But as part of the overall plan this behaviour had the important purpose of avoiding the creation of dependency. The desire to receive a response to their problems together with the requirement to have senior managers involved in the process represents paradoxical behaviour on their part and contrasts with the resistance shown to all attempts by MEC or any other top-down initiative to bring about change in the university activities.

5.2.1.3. Motivation

The understanding and management of motivation was essential to reach the final group of participants that would constitute the first Action Research Group (ARG). During the presentation as an external motivator I was able to provide the drivers for each professor to reflect on and use their intrinsic motives, not only to get involved in an innovative and provocative project but also to recognise the individual value and the possibility of self-development.

As described by Ellerman (2005), extrinsic motivation cannot be used simultaneously with intrinsic motivation as the former will override the latter. Thus,

during the mobilization phase, as an ICAF, I managed the motivation by being an external motivator, but not by offering extrinsic motivation. After that, the intrinsic motivation raised in each individual due to their own interest for professional development drove them from uncertainty and doubts (presented as negative aspects of the presentation in Table 5.5) to the decision to be a volunteer. Certainly, if I had decided to adopt a strategy where solutions would be provided and the power of senior managers would be involved, the number of enthusiasts would increase, as was recently observed during the Pro-UFRA project (Botelho 2004). But, as the experiences within that project showed, it would be difficult to identify and consequently to have involved only those truly committed or intrinsically motivated.

From this moment on I needed to manage the group in such a way as to enable all to reinforce their intrinsic motives throughout the subsequent phases of the project. Thus, the next stage, the training program, was designed based upon the previous experience of professors in order to match their needs and expectations. The training needs assessment was conducted as soon as the group of 20 volunteers (Table 5.4) was established. To design the course I collected information through the analysis of *c.v.*'s and questionnaires regarding expectations and fears about AR (see for example, Boydell & Leary 1996; Peterson 2000).

The results of the training needs analysis ratified my preliminary assumptions, based upon the examination of *c.v.*'s and the scrutiny of the literature. That is in general professors from a technical university - such as a rural university - have little or no knowledge about research methodologies outside of the positivist paradigm³³. In addition to that, almost all volunteers had demonstrated their concern about the time that would be spent for the training so that, in the end, the program was conducted with a routine of two days of intensive training sessions and four weeks of individual tutorial sessions leading to the construction of a plan of action for their own AR projects.

After the first day, 8 more volunteers decided to withdraw which reduced the group to 12 volunteers. At this point in the project there was a real risk of under recruitment, an important risk regarding the type of mobilization envisaged. Although the initial intention was to work with volunteer professors I could not initiate the next phase without a minimum number that would be a critical mass able in theory to ensure sustainability for the process.

The reasons for withdrawal presented by these 8 volunteers were not in the first instance totally different from those presented by the non-volunteers, and again

³³ A *c.v.* from one of the volunteers is presented in its full version in Appendix 'S'. However, the name of the volunteer is not presented, following the ethical agreement made.

the issue of time was used. Initially, I accepted this without challenge and without a search for hidden reasons because, as presented in Table 5.4, I was still satisfied with the representativeness of the group measured in the light not only of traditional factors like gender, institutes, and experience, but also in regard to their distribution within the two political groups. In fact, I accepted it because at this moment I could quite clearly see myself in them - an experienced professor well trained in research skills, but with no experience outside the positivist paradigm. Thus, it seemed clear to me that this withdrawal represented the difficulty in understanding and accepting another radical research paradigm, as I recorded.

"I can not blame them for withdrawing. How many times have I asked myself if this shift in paradigm was really justifiable?" (Diary entry, Oct. 2004)

However, after the first day of training when the 8 volunteers had withdrawn I reviewed the interviews and therefore the reasons presented, and I started to read the message hidden in some of their statements that showed the importance of the political aspect of representativeness and the archetypes.

"...you have a good group I am not necessary and I will not have time for all these activities..." "... I do not have the same experience that they have so that I will have to spend much more effort just to catch them ... I really think that is better to withdrawal now than in the middle of the process as I know that some colleagues will do." (Extract from the interviews with former volunteers, Oct. 2004).)

These examples show the comparison made by these professors with other volunteers in the group, which was missed by me or misinterpreted during the interview process as the recognition of the amount of work only, that is the reframing of the cost/benefit in favour of the costs.

This discovery forced me to review all questionnaires and interviews made previously with non-volunteers. However, they did not present the same pattern which suggests that those who did not volunteer were not sufficiently intrinsically motivated by the process, whereas for the volunteers who withdrew the political constraint was superior to the willingness to take part in this project as they used the individual comparison with other volunteers to justify their withdrawal. This assumption is reinforced by the archetypes to which these volunteers were allocated (Table 5.7).

Table 5.7: Professors from the different archetypes in each stage of the first mobilization.

Archetypes	Mobilization Stages		
	1 st Presentation	Individual Presentation	Training
Aide	6	-	-
Challenger	5	5	5
Adherent	4	4	-
Partner	5	5	5
Weathercock	4	-	
Antagonist	13	6	2

Thus, based on the results presented so far and as pointed out above, I firmly believe that this was inevitable and, much more importantly, that only a call for volunteers would be able to bring together professors from all the different political groups that constitute the institution.

However, as the political arrangement of professors also seems to be a possible component of the desire to withdraw, as observed previously, I decided to bring forward the use of the sociogram analysis. Initially I had intended it to be used during the implementation phase, but I used it as the first activity on the second day of training in order to identify groups and individuals within the volunteer group. Based on the information provided by the sociogram (Fig. 5.1) I put together a strategy in order to assure a collective praxis rather than just individual efforts of professional development so that the group cohesion could overcome the threats imposed by the university scenario of political contest.

Within this sociogram it is possible to establish a baseline in relation to the social structure of this ARG and, therefore, to identify five propositional-groups: a) 1-12-5; b) 2-12-5; c) 1-12-7; d) 10-9-3 and e) 4-9-11. On the other hand, it is also clear that some individuals (6, 8, and 11) were almost completely isolated. It shows that the university is truly facing individualistic behaviour as mentioned in Chapter 1 regarding the diagnosis of the problems of the Brazilian university system. Consequently, I would need to overcome this constraint in order to have success in the use of Action Research as a vehicle for professional development and organizational change.

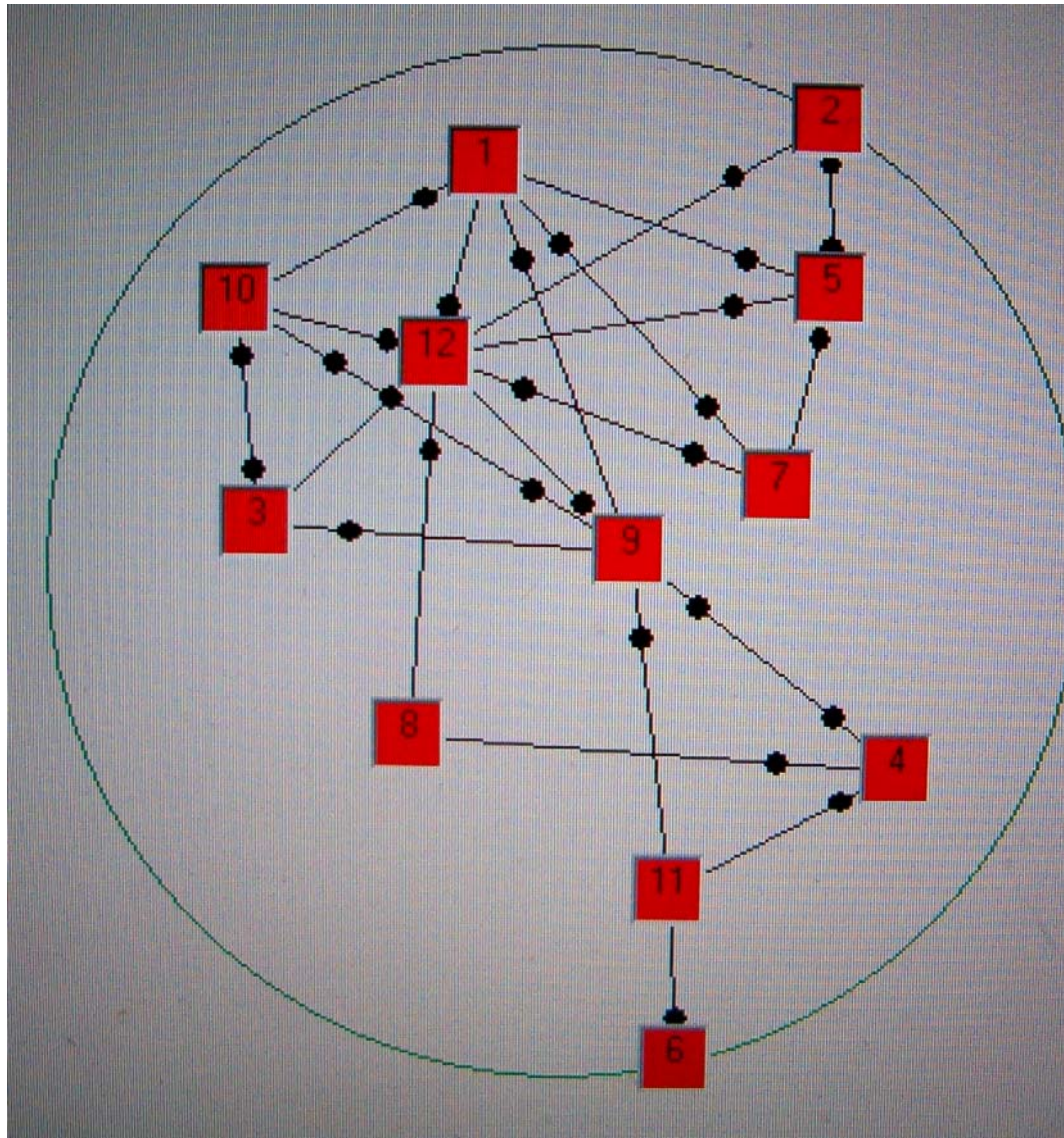


Figure 5.1: Sociogram of 12 participants (first cohort). [*Lines with two dots express mutual indication. Lines with a single dot indicate the desire of the closest to interact with the furthest.*]

Based on the ideas and concepts provided by the literature review, as well as my observations locally, I firmly believe that whichever moment, place or strategy had been used to present a project like this, the group of volunteers would have a similar configuration in terms of relationship and individualistic behaviour. This claim is supported by statements like this:

“Sorry Marcel, but whether you believe it or not there are some professors in this group that I did not know the surname of and others that I had talked to four or five months ago” “I can not remember the names. Could you tell me? We are isolated in our island, aren’t we?”
(Extract from interview statements, Oct. 2004)

As mentioned above, the sociogram was crucial in deciding some strategies during the training sessions, such as: where each professor would be seated, and with whom they should engage during the discussions in order to start to build group cohesion, to enhance the social capital and finally to overcome the isolation of most volunteers. So, the result of these actions was that at the end of the first cycle of mobilization the first ARG was formed with 12 participants that still represented a fair distribution of the university staff (Table 5.8) and essentially started to develop shared goals and began to trust each other, as I will reveal in the next phase.

Table 5.8: Profile of participants at the start of the Implementation phase.

Phase/Stage	Particip'nts	Gender		Institutes of UFRA			Years as professor		
		Men	Women	ICA	ISPA	ISARH	>15	5 to 14	<5
Start of Implement'on	12	7 (58%)	5 (42%)	4 (33%)	3 (25%)	5 (42%)	5 (42%)	2 (16%)	5 (42%)

Also it is important to mention that all political groups were represented within the ARG and the actions taken during the training started to challenge the *status quo* so that gradually the political constraint seemed to be undermined in favour of a rational, scientific and academic debate as expressed in comments like this:

"... gosh!!! I am really surprised with some people here. It's amazing how different they are when there are no hidden feelings..." (Extract from interview statements, Nov. 2004)

5.2.1.4. A short view of the first mobilization

The emphasis in the process was upon self-development, self-determination and the management of intrinsic motivation (Ellerman 2005). In order to discuss the overall process of the management regarding the first cycle of mobilization I will first try to summarise it in Fig. 5.2.

Here, period I is the presentation stage where external motivation should be provided by the change agent in the form of an explanation of Action Research. The facilitator's focus at this point must be on internal motivational factors by arousing curiosity and emphasizing the prospects for personal development. The purpose is to maximize the number of volunteers.

Period II is the recruitment stage where the number of volunteers needs to be reduced by exploring with them the nature of their motivation, to ensure that it is intrinsic and not due to any personal link with the facilitator.

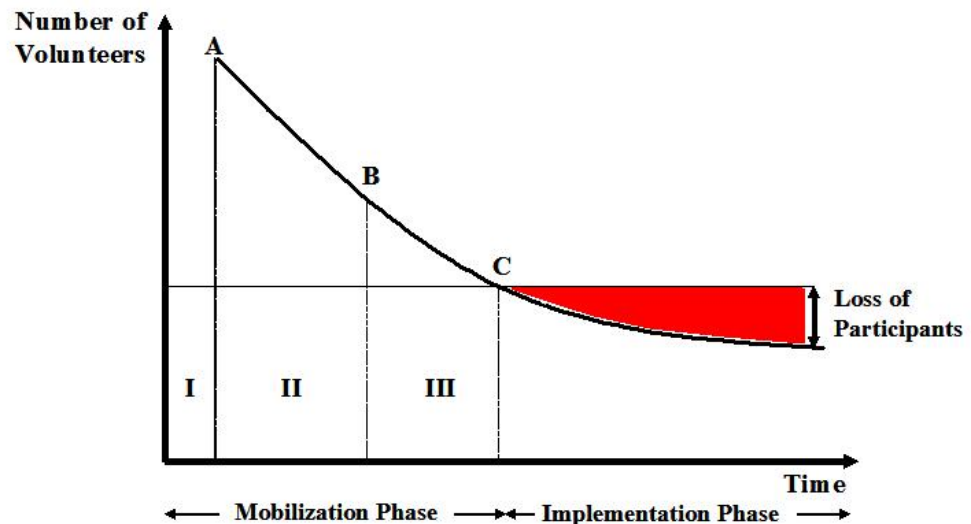


Figure 5.2: The Decline of volunteer numbers during the Mobilization Phase and into Implementation [where the decision point A marks the end of the presentations, B marks the beginning of training and C marks the generation of the first plans for personal Action Research].

Period III is the training stage, where the understanding of what is involved needed to be deepened and where the tenacity to take part had to be challenged by the unfolding realization of the costs to the individual, so that only those truly committed would remain.

At this stage, as numbers declined towards the target for the project and there was a risk of under recruitment, it became necessary to apply further external motivation in the form of the facilitator's encouragement and redirection of attention back towards the originally perceived benefits of participating. It was imperative at this stage that the facilitator/change agent focus their attention upon promoting intrinsic motivational factors and at all costs to avoid the risk of creating or encouraging dependency by eschewing the temptation to do things for the participants that they should do for themselves.

The possibility of loss of participants during the implementation phase is represented in red which would denote a risk to the overall sustainability of the process. Furthermore, these losses had to be minimal as a 'critical mass' was required, in order to carry on the use of AR across the university and then to sustain it, spread it and improve it³⁴. Although at this stage there was no evidence to confirm that this should be the exact number of participants that should be involved, there

³⁴ The number of participants that represent this critical mass (12) was established based on the minimum number of professors able to be representative of the whole university and fundamentally the maximum number of participants that the facilitator considered he could cope with.

was no evidence to the contrary either. Therefore, I conducted the forthcoming actions in order to preserve what I considered to be the correct number of participants for the sustainability of the whole process. I will return to this discussion during the implementation and continuation phases when the evidence collected will enable new considerations regarding this issue.

So, in response to the results provided by the sociogram (Fig. 5.1) and as the participants had not completed successfully their action plan after the second day of training, I put into practice a program of weekly meetings as a strategy to encourage them to continue to share ideas, fears, concerns, anxieties: in brief, to give them the opportunity to get to know each other and to express mutual trust, gradually moving from the individualised to a collaborative action and thus to foster the enhancement of the group's social capital (Hooghe & Stolle 2003; Oh *et al.* 2006).

After four such meetings they had finished, in a very reasonable way, their action plans. Then volunteer 10 suggested that we break down the group into smaller thematic groups as long as by this time they had already chosen their subject for the development of their own Action Research projects. Thus, from this moment the group decided to have one meeting every fifteen days within each small group and one larger group meeting every two months. This was the indicator of the end of the first mobilization phase. It also represented the first signs of group cohesion and a shift in the group arrangements, which I will start to explore next.

The formation of different groups (shown later in Fig. 5.3), in relation to those previously existent and shown in the sociogram (Fig. 5.1), was considered as a positive result at this moment. This was extremely important for the development of the project due to the fact that they had initially been arranged in groups according to their political and professional affinities, but now they were forming groups based on a subject that was above the area of expertise, political arrangement or even friendship.

In addition, the formation of these 'peer' groups, in which the participants had the same status, was absolutely pivotal to enhance interactions and develop shared goals and common discourses that would be important during the Continuation phase, as I will explore later.

As a result of this strategy, for example, professors that literally did not know each other suddenly were in an exiting debate during the meetings about teaching methodology, assessment, institutional policy, student and professor motivation, etc, so that when I asked during the interview "*What is your feeling about these initial meetings?*" they did not show any sign of regret or concern about the process. On

the contrary, they demonstrated satisfaction and a happy surprise, as can be seen through the statements below:

“ ... I had no idea that we could have this kind of discussion, I am learning a lot here ... “ ... I am glad with the opportunity to share my ideas about teaching, in fact, I was needing to do it.” ”I could not imagine myself discussing with some people here, they seemed to be so arrogant...” (Extract from interview statements, Nov. 2004)

This last affirmation is supported by the statements presented on the previous page where there are clear feelings of satisfaction especially in the last quotation.

It is important at this moment to stress (a) that this process of mobilization overcame initial resistance to the project, mainly in relation to the resistance that comes from the use of ‘power-over’, in order to get people involved; (b) that this strategy was crucial to retain only those who were really committed and keen to take actions seriously and not only from enthusiasm, curiosity or friendship and (c) that the design and strategies adopted during this first cycle of mobilization had successfully involved professors from all internal political groups.

By the end of November, with all participants having presented an action plan for their own Action Research projects, the end of the first mobilization cycle was then indicated so that from now on my concerns were mainly related to the ongoing implementation of the first cycle of Action Research projects that will be explored in section 5.3.

5.2.1.5. The lessons learnt

In this section I will briefly present the lessons I had learnt through the first mobilization phase by putting my findings and reflections against the theoretical assumptions that I made in the first paragraph of section 5.2.

Reflecting upon the whole process so far it seems to me that I was right about some of my theoretical assumptions and the actions taken as a consequence of them. For instance: a) The political bias needed to be overcome; b) The participants needed to be representative of the whole university; c) The engagement of professors needed to be voluntary; and d) Equal opportunity needed to be pursued.

As a result, the project so far had not faced any resistance as observed by other authors in relation to projects that attempted to promote change and professional development within the Brazilian context (see Chapter one) and even within the UFRA context (see Botelho, Kowalski & Bartlett 2006).

In regard to one assumption there is still some doubt about its implications. That is: the optimum number of volunteers. This was set against the assumption that I could only successfully mentor a certain number of participants (12). However, the requirements of this facilitation would only be correctly assessed after the first implementation.

Finally, my assumption that mobilization could bring about the engagement of professors through their curiosity and enthusiasm seems to have been ill-founded. In fact, only commitment itself was able firstly to retain the participants throughout these stages of the mobilization phase and secondly to avoid political bias in the recruitment of the participants.

5.2.2. *Implementation: First Cycle*

As before let me begin by setting out my thoughts going into this phase. In order to successfully implement the use of AR amongst a group of committed professors I would have to act to facilitate the achievement of the following objectives: a) The development of a significant number of AR projects; b) The successful completion of a significant number of AR projects; c) The wider involvement of the other professors in the institution; and d) a change in the values of the participants.

In planning my actions in this phase I intended that the first cycle of implementation should begin as a seamless continuation of the final stage of the first cycle of mobilization. In other words, it should start immediately after the establishment of the group of 12 participants (Table 5.8 and Fig. 5.1). Note that now I am calling them participants instead of volunteers because, from this stage on, they had become active participants of the process of the introduction and adoption of Action Research in UFRA. Therefore, I have formally established a distinction between the enthusiasts (volunteers) and those fully committed to the process of change (participants).

The literature, as presented in Chapter 2, is full of good practices and models of the management of change and professional development. However, those are mostly through the use of an external expert, facilitator, agent of change, or consultant whereas, as a living theory approach (McNiff & Whitehead 2006), my own AR project led me to investigate the questions set out in section 1.4 through the stand point of an Insider Change Agent/Facilitator – ICAF, namely:

- **How can I best support academic staff practitioners of Action Research?**

- **How can I ensure reciprocity and collective ownership throughout the project?**
- **How can I foster collaborative inquiries within the context of an Action Research group?**
- **How can I overcome the constraints to the use of Action Research as a vehicle of change in a university in Brazil?**

The reflection about the first cycle of Mobilization raised a major concern: the decline of the numbers of participants below the optimal number for the project and the risk of under recruitment (Fig. 5.2).

The activities of this stage had to be envisaged in the light of motivational factors and the management of the group. My work with the 12 participants, other academic staff from UFRA, and my self-perceptions of events led me to revisit and revise the guiding principles established at the very beginning of this project - that is, autonomous self-development, self-determination and intrinsic motivation (Ellerman 2005) - and adopted during mobilization. I decided as a result that, throughout the following stages of the implementation phase, my actions should be conducted in order to maintain the commitment of all participants, in order to understand and improve the whole process without undermining those principles and in order to support the development of knowledge about Action Research.

The response to the four questions set out above was to see the implementation phase in two stages, the directive-individualized and the collaborative (Law 1999). In other words, these two phases would represent the attempt to deal with those dilemmas concerning the facilitation of AR outlined in Chapter 2.

Thus, initially, the process was to be conducted in a technology transfer mode, with the actions, focus and direction of the meetings being determined by my initial action planning (directive).

The directive-individualized stage would be carried over from the mobilization and into the initial moments of implementation as long as all participants demonstrated little knowledge about AR *per se*, and whilst the political backdrop remained a threat to open discussions and free speech, so that most of the discussions would be held during the individualised tutorials sessions.

As the participants learnt to trust each other and develop shared goals, I intended that the conduct of the meetings and the whole process of implementation should change to a more collaborative approach. For example, the topics under discussion should start to be suggested by the participants and finally agreed by all. This should allow them to explore their own goals through group collaboration, self-

reflection, and systematic and intentional inquiry to effect change in their educational practice.

Subsequently, all decisions involving the project agenda should be made in a responsive and collaborative way according to the unfolding of the whole process. This not only should have enhanced the process of learning about Action Research but also should have been decisive for the process of group formation and cohesion.

5.2.2.1. The directive-individualised stage

At initial ARG meetings, for instance, my role was dynamic, acting as a critical friend and at the same time as a distant observer (Messner & Rauch 1995). As a critical friend, I had not only to respond to the unfolding requirements of the practitioners (individualised) reinforcing their self-confidence by giving them positive feedback but also to foster open discussion about the issues regarding the adoption of Action Research. As a distant observer, I was searching for the indicators of the successes or failures regarding their projects in order to offer new elements for the individual and group discussions.

The first meeting after all the participants had concluded their action plans for the first cycle of Action Research, was a whole ARG meeting and was conducted in order to give the opportunity to each participant to present and submit their plans for the criticism of the other participants.

During this meeting I divided the group according to their area of interest, into those three smalls groups mentioned before in section 5.2, namely: Teaching Methodology, Student Motivation and Assessment, as suggested by participant 10 and agreed by all. Thus, from that point we had small Action Research groups (SARG) and the Whole Action Research group (WARG) meetings. The current design of this Action Research group (Fig. 5.3) can be described as my own restatement of the 'Daisy Model' presented in the section 2.2.4. Fig. 5.3 also shows the distribution of the participants within each small Action Research group (petal group).

Meanwhile, individual tutorial sessions (ITS) were held with each participant at least once a week. Thus the process of collaborative praxis gradually started to be constructed within the ARG whilst the directive actions lost strength.

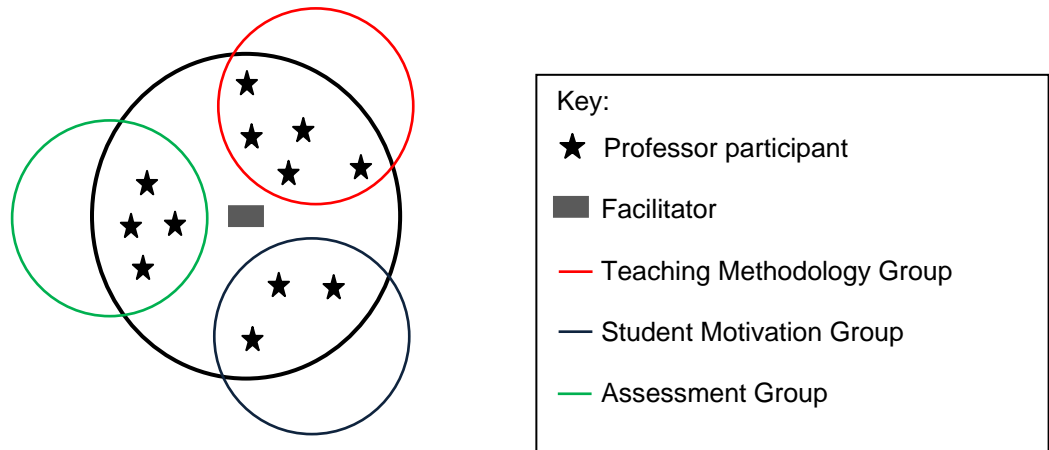


Figure 5.3 The Daisy Model arrangement of the WARG (Adapted from Melrose & Reid 2000).

So far, the responses provided by the participants were very positive in relation to the conduct of the process, as can be exemplified by the following statements recorded during the individual tutorials as unstructured observation and registered in my diary:

"I think that you have established a good personal relationship with all of us and this has made the process of discussion very easy." (participant 5)

"Your patience and participation in the management of our discussions are very important." (participant 8)

"What in my opinion has been very helpful was your flexibility as far as time was concerned, that you always paid attention to our time schedules. You are simply there whenever we need." (participant 10)

"Your reinforcement and assurance by way of positive feedback together with your honest intention to make it possible has created the right conditions for a given situation, and therefore, our discussions are becoming deeper and deeper." (participant 4) (Diary entry, Dec 2004)

As a distant observer I had to distance myself emotionally from what was happening in order to clarify the situation by asking specific questions that would find some hidden form of resistance within the participants, simply because they themselves needed to reflect on their own behaviour as well as their position within the ARG.

As recorded in my diary:

"This is a crucial moment in the project. I can see in them myself fighting against years and years of positivist experiences and theoretical background." (Diary entry, Dec 2004).

This moment represented a crucial stage for their assessment of costs and benefits. Their commitment would be tested as well as my capacity as a facilitator.

In contrast with the actions of the critical friend, these questions endanger self-esteem (Elliott 1985), because they can lead to the questioning and destruction of routines and models of explanation (Nixon 1981). Having said this, my concern at this moment was to be perceived as an ally not just as a questioner (Messner & Rauch 1995). Thus, despite that positive feedback, as a distant observer I could recognize that they were still inhibited when discussing with each other.

During the first SARG meetings, in the middle of December 2004, I observed that some participants started to lose confidence and the willingness to conduct their AR projects. It happened after the initial attempts to implement their projects, because again the costs appeared higher than the benefits.

To prevent more withdrawals, which were my main concern at this stage, I acted as an external motivator during the next week's ITS (directive-individualised) in order to bring out the intrinsic motivator that had driven them to voluntarily engage in the project in the first instance. However, in contrast with the first cycle of mobilization, at this stage, my role as facilitator was about asking questions and not only telling them what could happen or what to do (Williams 1996). This shift in attitude was clearly perceived by the participants and, as a result, they started to search for other forms of support like insights from the literature, as I had done myself during the early days of my contact with AR. The instant result of this was that the debates about Action Research *per se*, during the small group meetings, increased in depth, showing development in terms of knowledge and understanding, resulting in a gain in confidence.

"Today I had a deep discussion with the members of the teaching methodology group. They brought two articles regarding the use of Action Research in Brasil that we scrutinized in order to find similarities with their own projects. But I was really surprised when participant 4 started to point out the relationship amongst those articles and the study produced by Carr and Kemis". (Diary entry, Dec 2004)

What really made them regain confidence to continue their researches was the ability to reflect upon the facts and the methodology *per se*, being able to recognise the key features in particular situations in order to respond to questions about what, when and why to do it. In other words, they were able to find intrinsic motivation.

As noted before in the quotation from my diary, as a novice I had already passed through these ups and downs myself so that I knew more or less what they

were feeling, what kind of doubts, concerns, frustrations they might have and, above all, I knew that I could not provide the answers because the way to overcome this challenge lies in the personal construction of knowledge and the development of understanding about AR (Wadsworth 1996), in brief, to foster a collaborative praxis.

5.2.2.2. The collaborative stage

To assess the participants' development in knowledge and understanding about AR, I systematically asked open-ended questions during the individual tutorials such as: "What questions are you trying to answer?"; "What are the main characteristics of these data collection instruments that you chose?"; "How are you intending to develop the research?"; "Briefly state two reasons why you should use AR as the research methodology for this project"; "List who will be involved". These open-ended questions required short answers from them about facts, lists and procedures regarding Action Research methodology as well as some sort of analysis of the institutional and individual contexts. But also, these questions worked as small victories, small rewards that helped to build self-confidence.

My observations regarding the development of knowledge and understanding of their Action Research projects – not only in relation to their responses or participation in small group meetings, but also in relation to their role as professors in the daily activities like teaching, institutional meetings, informal discussions, etc – provided evidence that they were fully on board and advocating in favour of their own projects and Action Research *per se*. For example:

"Today I watched three professors surrounding participant 3 in the corridor asking questions about action research, at first look they were well interested ... Participant 6 told me today that students asked questions about AR that he could not answer properly and I suggested more reading about ethics and AR....Today I met participant 10 and he is thinking about whether to expose his action plan during the Institute meeting next Friday. Today participant 12 and I had a long conversation about her concerns in relation to the way that some colleagues will react to the AR project...". (Diary entry, Jan. 2005).

During these first two months, they were all actively seeking to do things better, using this process as an opportunity for improvement, showing self-confidence and personal drive, managing personal learning and development, identifying and applying the AR concepts, showing enthusiasm when difficulties appeared and seeing opportunities rather than difficulties. However, I could not identify other indicators of the shift from the individualised to a more collaborative

praxis. In fact, the only moment of collaborative praxis occurred during the small group meetings when they used to exchange information about their projects and showed sensitivity to the needs of others inside the SARG.

This kind of behaviour is similar to that presented by several authors (see for instance, Engel 2000; and Burbank & Kauchak 2003) in relation to the adoption of Action Research as a professional development tool or for educational reform, and reflects the individual behaviour that is characteristic of the Brazilian higher education professors.

However, during a public debate between the two candidates for the post of Rector all those participants who were present, left the auditorium almost simultaneously. Perhaps this could be perceived as an isolated fact. Nevertheless, when I asked why they had left the auditorium as well as why some of them did not attend the debate, they, with minimal difference in the kind or order of words used, described the debate as a 'waste of time'. I believe that the group of participants had just provided the first evidence that they were developing a different understanding about the process of election compared to the majority of the other professors. The question now became whether or not this attitude represents an influential impact of their involvement in the ARG.

The institutional context was also monitored through daily observations and unstructured interviews held with other UFRA professors every three months, regarding the actions of the participants, institutional structure and policies. The results of my observations around the period of November/December/January, in relation to the institutional scenario, were recorded in my diary with these words:

"The apparent calm is hiding a process where people are avoiding talking, the conversations are codified, and everybody seems to be vigilant in relation to what others are doing and saying. ... Only this week I heard the same phrase at least ten times: More than two people talking is a rebellion. Firstly, I faced it as a joke, but now it seems to be a warning. ... I spent the whole day visiting different departments in different institutes and I could not find a single professor who was not talking about the forthcoming election." (Diary entry, Jan 2005)

Thus, the attitude behind leaving the auditorium gains in importance. Maybe the other professors did not pay attention to it, and even the participants did not note the pattern, or even it may be just a reflex of their archetypes (challenger and partner professors). Nevertheless, there was a clear pattern that needed to be followed by further observation.

Despite the comment made previously by the participants, describing the debate as a 'waste of time', the pressure imposed by the election process had invaded the ARG discussions and I recorded this in my diary in this way:

"This month I have noted that some participants are much more concerned about which topics to address during our tutorials and SARG meetings, the discussions are less intensive and not everyone has attended the meetings. It is clear to me that this is a collateral effect of the election process because even for me it has been difficult not to be contaminated by this subject." (Diary entry, Feb 2005)

As part of my initial strategy my first action was to present this project to the Rector and his rival both to gain consent in order to initiate the process and to ensure a neutral position in relation to the forthcoming elections. This action had worked until this point. However, the proximity of the election had created an environment where the hidden conflicts had been brought to the surface and the search for allies and, more importantly, for votes had provoked the invasion of all lives and I was not an exception.

Two months after the establishment of the Small Action Research Groups (Feb. 2005), and as part of the overall plan agreed, each participant was formally interviewed. The first question – *"Please could you comment about these observations made by me?"* – assessed the data collected through my observations, diary and questionnaires. As a whole, their comments were broad and shallow. After the reading of my notes, in general, they limited their opinions about the correction of one or two sentences, mostly to soften the action verb used. In addition, they all agreed with my observations and interpretations of the facts with sentences like:

"Yes, I think that you captured the main idea...." (participant 1).

"It is correct! Yes, it is correct! I really did it." (participant 5).

"Oh my god!!! You were there? But, where?I really said that to...." (participant 6).

"You read my mind!!!! Fantastic!!!!" (participant 9).

"Yes I agree, but what do you mean by Ah!!! OK!!! So we could say" (participant 10).

"Well done! ... I did not note that.... Yeah, I think that is the way to describe...." (participant 12). (Extracts from the interview schedules, Feb. 2005)

Also, in relation to the questions 2 and 4 – *"Do you remember the motives that led you to engage in this project?"*; and, *"What have you learned so far?"* – they all answered quite similarly. In regard to the second, they reinforced the reasons

captured in the questionnaire delivered after the presentations (section 5.2), whereas responding to the fourth question they defined broadly a growing sense of knowledge about Action Research and inklings about the reflexive praxis:

"Yes, I am trying to improve my teaching and this action research methodology seemed to me a chance to do something about it." (participant 2).

"Well, to be honest I am interested in my improvement as a teacher. Sounds selfish but that is the truth..." (participant 4).

"I guess I learnt something about action research since I started this process. I am thinking more about my activities now." (participant 7).

"Well, to be fair I think that I learnt that there is more to be done, but I am still working on how to do it. Do you know what I mean? I wanted to do something about my professorial activity and now I know that I can do it, but I am not sure if how I am doing this is 100% correct." (participant 8)

(Extracts from interview schedules, Feb. 2005)

In respect to the third and fifth questions they clearly expressed their concern about the lack of knowledge about AR but more importantly they demonstrated that they were worried about the institutional impact of their project and vice versa:

"Well, let me put it in this way. I am now going back to school. There is so much to learn about action research. I think that is my difficulty to apply action research" (participant 3).

"Difficulty? I do not know if I would use this word. I prefer to say that I am having some delays due to my learning stage. If you know what I mean." (participant 10).

"I really do not know how my colleagues will react. So, I am considering the possibility to change my project." (participant 11). *"... therefore, I will be subject to the will of our course coordinator and there is nothing to do about it, because...."* (participant 12) (Extracts from interview schedules, Feb. 2005)

Also in February 2005 the first whole group meeting was conducted when in general, despite the good level of participation of all, I observed that some participants seemed uncomfortable, as their body language suggested distraction, a desire to finish quickly and sometimes they were 'hiding' themselves trying to 'disappear under the table'. In my diary these observations were registered with these words:

"I guess participants 1, 5 and 6 are losing the desire to be involved with the project. Why is it happening? What do I have to do? Just accept the

withdrawal? If, not what else can I do? How can I manage this without creating dependency by doing their work? Is it a real problem?” (Diary entry, Feb 2005)

These questions raised in my diary, show that I was seeking for meaning that could inform me about actions that did not work.

These analyses were enriched through the debriefing process carried out by my experienced, external change agent in March 2005. At that moment I also submitted my findings to the criticism of different audiences through presentations at conferences and seminars. On all of these occasions the issue of intrinsic motivation was stressed as the major factor to retain the participants as well as to generate sustainability for the entire process.

Naturally, at this point I had many more questions than answers as I was exploring an experience that I had not had before. However, some of these questions needed to be answered quickly under the risk of compromising the whole project:

“I am afraid that all the efforts so far will be lost if I do not involve the senior managers in order to get credibility for the process. What would happen if I involved those senior managers that had volunteered? Should I involve them now?” (Diary entry, Feb 2005)

The responses at this stage came from the debriefing process and, also, from the ideas of Hopson and Adams (1976) and Hopson, Scally and Stafford (1988) on transitions, outlined in section 2.4.3 that described the behaviour of volunteers who tend to minimise or even to neglect the risk and the cost at the beginning of the process, followed by the recognition and assessment of the risks and costs of the process, as it proceeds. Inevitably this leads to a drop in the level of confidence and self-esteem at a critical point some way into the process.

Furthermore, as I had my own self-esteem renewed by the support of my experienced change agent, I decided to use this experience with the participants of the ARG. For this reason, I conducted a series of individual tutorials presenting a report of the Mobilization phase stressing the choice of working with volunteer participants; the initial plan of just one presentation for each institute; the decision to conduct small and individual presentations as well as a presentation during the professors' association meeting; the decision to prohibit the senior managers from involvement; and finally the process of selection and training of participants.

Thus, I was expecting to renew the value of self-development and self-reward initially reported by them as their driver for engagement and, as experienced by

myself, to overcome this constraint to increase the self-esteem of participants. Some comments from volunteers are transcribed below to show the impact of this action:

"I really avoid going to these institutional meetings, after several hours of discussions there is no agreement, nothing is decided and there is always another meeting, But in the end, it is the Rector who will tell us what to do." (participant 6)

"37!!! ... 37!!! I was imagining that you are lucky with 12. 37? Are you sure? Sorry, I am not saying that you are lying, ... its just ... Well, we are not alone after all." (participant 1)

"Look, I agree with the contract where we must trust in each other, so I will be very honest. I do not believe that we can change this university. I know that I can improve my personal skills as a professor and I hope we all can do it so we have to! (participant 10)

"How many have not come from that presentation that you did at the association? One? Two? Well, let me see ... er not more than 5 for sure ... I am sure that volunteers are the right choice. Do you remember the Pro-UFRA? In the end we were alone!!! Even now we have professors that do not know what it was. Ok, some are just a waste of time, but it never was institutional." (participant 11)

"I agree. I totally agree. This time flexibility is essential for us. You will never be able to put together more than three professors in the same room for more their two hours. You know that!!!" (participant 6). (Extracts from interview statements, March. 2005)

On the whole, the first part of the tutorial was a good icebreaker. However, as I had expected, the decision not to accept senior managers as members of the ARG was challenged. It really happened. In the end, 10 of the 12 participants did it, so that, I had to explain, once more, the concepts that guided this project. Nevertheless, it was not entirely agreed to by the participants as noted by the statement below:

"I understand your point, but I really think that we need the support from top managers, don't we? Otherwise this will be just another academic experiment" (participant 10) (Extract from interview statements, March. 2005).

Initially, my thoughts were related to the effects caused by the election process which I had assessed by a systematic monitoring of the institutional context through observations made during regular meetings of institutes, professors, technical staff and students.

However, afterwards I analysed this position in relation to the archetype of participant 10. He is one of the two professors that belong to the 'Antagonist' archetype. Together with the 'Challenger' they were the archetypes with most political involvement within the ARG. Thus, it is clear that the whole process was under a risk of being co-opted by the political scenario at this stage.

After all, the project had survived up until the election process without major problems. Nevertheless, the input of the election in the project should be verified so that during the tutorials I repeated two of the questions used in the individual interview: a) What have you learned so far? b) What are the problems to implement your project?

The first question, again, provoked a moment of euphoria and enthusiasm and, clearly, the election process had not affected the willingness to try to be involved with the AR project. However, the second question brought some fears to the surface when participants 1, 5, 8 and also participants, 2, 3 and 9 reported the same motives presented by the non-volunteers in first instance not to engage as part of their problems during the implementation of their AR projects.

"The major problem is the amount of work to do that is competing with the class, research, etc. I think that I underestimated this" (participant 1).

"I have no time to do this properly and it is frustrating because it is my fault I should have planned better" (participant 5).

"We should have an official support from the management because we all have too much activities and their support would save us time" (participant 8).

"I need more time." (participant 2).

"I have learned that is impossible to cook an omelette without breaking the eggs, ...I will explain I am adjusting my agenda in order to fit my project and it has been painful" (participant 3). "When we need to work with others, is really difficult to find a moment to match our agenda." (participant 9) (Extracts from interview statements, March. 2005)

Essentially, they had underestimated the time necessary to conduct their projects. Also, I could note that participants 2 and 7 were expecting more support from me as the facilitator.

"I am stuck in the questionnaires. Do you have a model? Can we prepare together?" (participant 2).

"I was very happy with my action plan, but after the meeting I realise that it's awful. The participant 2 told me that you gave to him a "manual", do

you have another copy of it?” (participant 7) (Extracts from interview statements, March. 2005)

Those statements not only brought concerns from the past but also cast new doubts upon my role as a facilitator: How could the scenario have changed so that 50% of the participants were at least uncomfortable with the process?

My thoughts drove me to a common dilemma of facilitating AR: Steering versus Accompanying (presented in the section 2.2.4). Therefore, as a facilitator I had to constantly ask myself how and when I could support them without taking control over their AR and consequently creating dependency.

With all my strength I tried to provide the same pattern of support to all, which, initially, had been successful as they started their projects. However, during the small group meeting held fifteen days after the latest interviews participants 1, 3 and 5 reported the same difficulties in conducting the process whereas participants 2, 6 and 7 expressed dissatisfaction with their performance. In my diary I recorded this important moment with these words:

“Clearly I underestimated the heterogeneity of the group. From now on I must go back to facilitate the process more individually, coping with individual issues as well as the collective ones. The individual rhythm must be respected.” (Diary entry, April 2005).

Messner and Rauch (1995) pointed out, in relation to the dilemmas faced by a facilitator of Action Research, that the pressure on the practitioners could be perceived in two different and opposite ways. As a motivator, the pressure made by the facilitator on some participants is an incentive to work harder; on the other hand, for some participants the same kind of pressure is an inhibitor: because they know what has to be done they feel this as over-control. Alternatively, because they interpret this pressure as confirmation of their poor performance they lose confidence.

No matter what was the reason, I clearly understood that each participant had their own pace that I should respect instead of trying to push or slow them down to my own pace. Another important insight came from an individual tutorial when participant (7) told me that:

“There is something that I would like to tell you. ... err... I was feeling myself threatened by you ...” (Diary entry, April 2005).

This is an indication that I was definitely acting as an expert in the eyes of this participant. It certainly placed me in the same position as an outside agent of change as I was able to cope with those who had a rhythm that was similar with my own, but I could not entirely understand the needs of others.

That was a decisive moment for this project because unless I could overcome this kind of resistance the process would inevitably be driven to a failed process of transference of knowledge that has been presented in so many examples from the fields of organizational development (French, Bell & Zawacki 2000), management of change (Carnall, 2003) and rural extension (Freire 1971b; Hirschman 1993; Spies & Frengley 1999; Lambert & Elix 2003).

As the process continued, the first action was to classify the participants into 3 categories based on my observations and the comments made by participants: (a) Advanced, (b) Medium, and (c) Beginners (Table 5.9).

The first group (A-Group), were formed by participants 4, 8, 9, 10, 11 and 12 who were developing completely their own projects, had an excellent level of understanding about AR methodology and demanded little support from me.

Table 5.9: Distribution of participants into the different groups according to their knowledge about AR (A – Advanced; M – Medium; and B – Beginners).

Group	Participants											
	1	2	3	4	5	6	7	8	9	10	11	12
A-Group				X				X	X	X	X	X
M-Group		X					X					
B-Group	X		X		X	X						

The second group, (M-Group) were formed by participants 7 and 2 who were struggling to develop their projects, had good understanding about AR methodology, and demanded frequent contact with me.

Finally, the third group (B-Group), were formed by participants 1, 3, 5 and 6 who were stuck within the action phase of their projects, had good understanding about the AR methodology, and began to avoid direct contact with me.

In the meanwhile, mobilization phase 2 had begun.

During individual tutorials in the first week of May my main concern was realised when all participants of the B-group (beginners) showed their desire to withdraw. As part of the ethical contract I did not challenge their decision. However, this important fact caused me to postpone the interview process that was programmed for the following week because I had to include this issue in my interview schedule.

At this time the new participants from the second cycle (described later) had concluded the final stage of Mobilization (training) and, armed with their brand new action plans were ready to enjoy the small ARG meetings for the first time. As a

whole, I described these meetings as the first action of the final phase of this project, Continuation, which will be addressed later in this chapter.

The main positive aspect observed during these meetings was the attitude of participants 4, 8, 10, 11 and 12. They naturally held control of the meeting, leading the discussions after the presentation of each action plan from the new participants. On the other hand, the main negative aspect observed was the non-attendance of participants from the B-group.

Following these meetings, during the first week of June, I was finally able to conduct the formal interviews with all participants (including the new participants) and especially with those participants from the B-group that had manifested the desire to withdraw.

I firmly believe that the course and consequences of my actions, so far, had clearly enabled the first participants to a) comprehend the AR methodology, b) successfully start their small scale AR projects, and c) to construct a knowledge background. As had happened with me in relation to the first participants, this comprehension and knowledge background gave them confidence to act as an expert facilitator during the first ARG meetings with the new participants.

Therefore, I decided to conduct the second round of formal interviews starting with one simple question: *"How are you feeling about your AR project?"* The responses to this question ranged from satisfaction, to disappointment, happiness, frustration and so on. However, more important was the fact that all participants started their answers using the words *"My AR project ..."*

This was an indication that there was ownership overall. The following step was to ask: *"How did I help or disturb you?"* Politely, none of them reported any disturbance, but more importantly, none of them showed that I had provoked dependency. In other words, despite the success or failure in conducting an AR project, all participants demonstrated that they were ultimately responsible for whatever had happened.

"It is not a question of help or disturbance, I simply do not have time to do it as it has to be done, I mean AR is much more complex than I first imagined..." (participant 5).

"Your guidance was important, for instance, the early steps of the planning, you push me to be more realistic, ... our discussions about the papers and books. I dare myself to say that I am almost an action

researcher.” (participant 8) (Extracts from interview statements, June. 2005)

The following questions – “*What factor was crucial for your withdrawal?*”; or “*What is the main factor in your opinion for the withdrawal of some participants?*” – showed unquestionable evidence for the reason that provoked these withdrawals. A high percentage (83%) of participants, including those who were withdrawing, related this to the difficulty to get other professors involved within their projects as well as the time-consuming nature of the planning and evaluation process.

“As I told you before, we all underestimated the amount of work and the time necessary to conduct this research...” (participant 1). “I am withdrawing due to the lack of time to do this properly. It is frustrating but I will not have time ...” (participant 5).

“I now have the clear idea about the amount of work to do and it is more than I had predicted. ... I tried to reschedule my activities but it was not enough because it involves the agenda of others and they are not prepared to reschedule.” (participant 3).

“I was very lucky in comparison with other participants They are working with colleagues that will never understand this kind of research” (participant 9) (Extracts from interview statements, June. 2005)

Indeed, as an insider Action Researcher developing my own cycle as a piece of AR, I could not agree more. The individualistic attitude of professors is the greatest constraint to be overcome and, together with the fact that they have no previous experience with this kind of research paradigm, it created a natural locus of resistance that for some participants represented more than they could or were willing to cope with.

July is traditionally the summer holiday for students in Para State so that I used this period to review some principles and concepts established previously and put them against the facts that were recently emerging.

I was convinced that this work should be grounded in a belief in the efficacy of democratic processes of reform (as posed in the literature review), developed by a neutral insider change agent/facilitator (see for example Ball 1987), with voluntary participation and intrinsic motivation (see for example Maslow 1968; Ellerman 2005) and based on the principles of ownership, a professional learning community and autonomous development (see for example Lewin 1952; Stenhouse 1975; Carr & Kemmis 1986; Elliott 1991; Zuber-Skerritt 1996; Wenger 1998a; Altrichter 2005). So, what was missing?

Until now I was addressing and acting as if these different phases were independent. However, these project phases are not only close in time but also inter-connected and, above all, have their own pace. Thus, 'Time' was re-emerging (see section 5.2) as an important factor for the sustainability of the project (see for example Morrison 1996; Luce-Kapler, Sumara, & Davis 2002). Thus, data were reviewed using another 'polarizing filter', which enable me to see below the surface of pressure for results and the paradox imposed by the dilemmas of facilitating the adoption of AR as an ICAF.

In August 2005, when classes were resumed, participant 12 came to me to withdraw. However, differently from the first participants this time the reason for this withdrawal was the health condition of the participant. In fact she demonstrated that she was upset with abruptly withdrawing at this stage when she was so close to finishing at least the first cycle.

In her words, here is an extract of our conversation:

"... I really do not like to start a process and stop in the middle of it, my impressions so far are great, I never had my students and colleagues so close to my work,.... but I am really bad, I need a break and I will ask for a one year license." (participant 12, Aug. 2005).

For the project this withdrawal represented a huge setback due to the fact that participant 12 was one of the three central participants responsible for the linkage of all participants (see Fig.s 5.1 and 5.5).

In September 2005 the first cycle of Implementation was finalised when five participants (4, 8, 9, 10 and 11) had completed the first cycle of their own AR projects and presented the results during the SARG meetings in a series of seminars. Thus, the number of projects at the end of the first cycle of Implementation (Table 5.10) show that the WARG had reached this stage with 7 active members, 2 AR projects still in development and 5 AR projects successfully completed.

More importantly, the data presented in Table 5.10 shows the accelerating process of wider involvement of professors outside the WARG within a professional learning community. They also indicate that people outside the WARG are aware about the challenges posed in relation to the adoption of AR, because they are participating in concrete actions to cope with these challenges. A further appraisal of this indicator is presented in the analysis of the continuation phase.

Table 5.10: Outcomes of the first cycle of the Implementation phase.

Outcomes	Start of Implement'on	Middle of 1 st Imp. Cycle	End of 1 st Imp Cycle
Number of participants	12	12	7
Number of AR projects being developed	12	8	2
Number of 1 st cycle AR projects completed	---	---	5
Number of professors outside the group who know about at least one AR project being developed	---	20%	55%

Fig. 5.4 shows the development and the enlargement of the project from the perspective of the 'Daisy Model'.

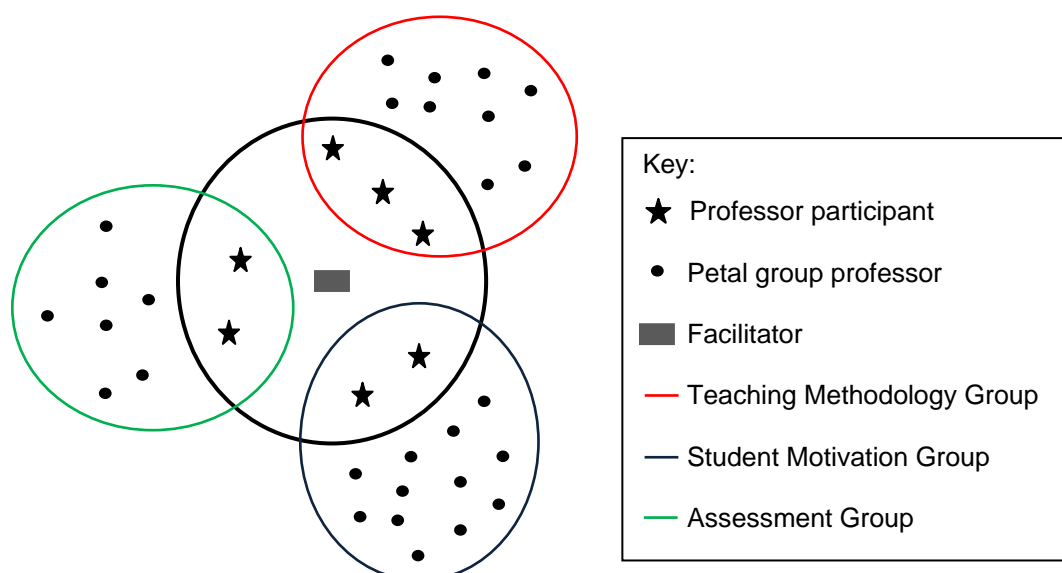


Figure 5.4 Daisy Model arrangement of the WARG at the end of the first cycle of implementation. (Adapted from Melrose & Reid 2000).

The core group was reduced to 7 professor participants, but now each petal had several new integrants. These integrants (petal professor) are professors outside of the whole ARG that were 'attracted' by one or more professors from the core group and now are involved with the AR projects developed by one of the professor participants.

During a WARG meeting at the end of September 2005 it was decided to present their results to the whole academic community. This symposium (of 5 seminars) became the first formal link of this project and the institution proper. However, in October 2005, a national strike interrupted the activities at UFRA and delayed the symposium. In the end, the strike was much longer than expected and the whole project was limited throughout to monthly meetings to discuss findings and

to plan the actions for the next cycle amongst the first cohort of participants and to review the planning of the first cycle for the new participants.

Regarding my own AR, this period was used to anticipate the process of reflection about the actions conducted during the first cycle of implementation mainly in relation to the withdrawal of those 4 participants. The actions taken in this regard properly belong to the continuation phase and will be addressed later in that specific section.

5.2.2.3. The sociogram analysis

The use of a sociogram at this stage was absolutely crucial to understanding the group dynamics, configuration and the implications of these for the management of the process (Miller 1991). Fig. 5.5 shows that, for example, although participant 6 had become more interactive, searching for integration with two other participants, this participant remained totally isolated from the rest of the WARG with no positive contact from any other participant. On the other hand, the second sociogram analysis also shows that participants 8 and 11 who had been poorly integrated with just two non-reciprocal linkages were now fully integrated within their small ARG and more importantly had started to develop positive interactions with the whole ARG.

As a whole, this second sociogram analysis shows that all professors within the WARG were beginning to develop integration outside the small clusters shown in the first sociogram analysis, though two of these clusters continued to be present as viewed in relation to participants 3, 9 and 10; and 2, 5 and 12.

In this regard, it is important to highlight here that participant 2 who, even though having been involved with the Student Motivation Group, remained clustered with their former social group presented in Fig. 5.1. Thus, I could affirm that participant 2 was as much isolated as participant 6. In fact, participant 6 had expressed the desire for new relationships that were not reciprocated. The third most isolated participant was participant 5 who, as with participant 2, remained attached to their former group.

In Fig. 5.5, it is also possible to identify a trend in the formation of three different, but integrated clusters. One of them is clearly defined as highlighted before, amongst participants 3, 9 and 10, whereas the other two are still mixed on the right side of the figure.

Again, in contrast with the first sociogram (Fig. 5.1), two other participants have started to play a more central role in relation to the cohesion of the group with more positive interactions: participants 4 and 7.

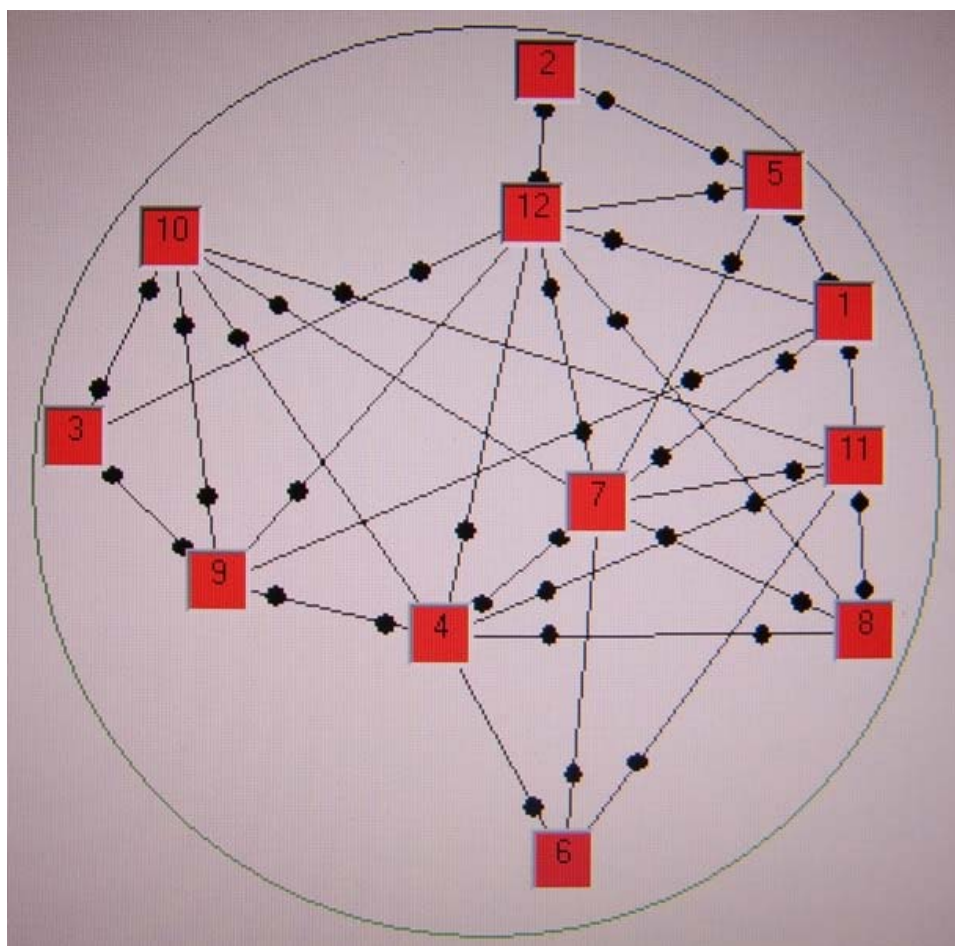


Figure 5.5: Sociogram analysis at the middle of the first cycle of Implementation. Lines with two dots express mutual indication. Lines with a single dot indicate the desire of the closest to interact with the fairest.

Participant 7 belonged to the student motivation group while participants 4 and 12 were integrated in the teaching methodology group. This new configuration was very welcome by me in relation to the sustainability of the whole process because these three members could become the natural leaders of the process, sharing the responsibility for the conduct of the process that until this point had been held by the ICAF.

The result of a survey conducted at the end of March and beginning of April exposed a dramatic change to the sustainability of the process in that only 2 in 10 professors who were not part of the WARG were involved in, or knew about the projects conducted by the participants. In other words, after seven months the individual AR projects remained practically unknown to the wider institution (see Table 5.10). This, together with my fear that the number of participants would drop below optimum and given the number of professors in the A-group, provoked a situation where the demand for my support was beyond my capacity to cope, so I decided to anticipate the start of the second cycle of Mobilization.

5.2.2.4. The lessons learnt

In this section I will present the lessons learnt through the first implementation by setting my findings and reflections against the theoretical assumptions and questions that I set out in the first paragraphs of section 5.3.

Reflecting upon the whole process so far it seems to me that the most important aspect of the implementation phase was to avoid the creation of dependency. Secondly, the actions of the facilitator must address individual participants differently simply because they are different. The sense of the achievement of targets such as: a) the number of projects developed, and b) the number of projects concluded, could not be placed ahead of aspects that would lead to the sustainability of the whole process. Thus, it was imperative to resist the temptation to give more support than absolutely necessary.

The management of motivation was a key action in relation to avoiding the creation of dependency. Note that these actions were occurring cumulatively, that is, from mobilization to implementation. At the former, the decision to call for volunteers was crucial to get those most motivated and then the process of self-selection retained those truly committed. At implementation, the balance between guidance and freedom to act, or as I called it earlier the directive-individualized and collaborative actions, sustained the initial motivation and strengthened the intrinsic reasons that ultimately were responsible for their commitment. Thus, it was possible to provide support both individually and collectively.

However, even with all my efforts the participants passed through those recognised stages of transition (see Hopson & Adams 1976 in section 2.4.3) where they fell into a kind of depression which was followed by self-doubt about their capacity and the benefits of the project. At the early stages of this project I also passed through these stages. However, as the facilitator I could not let myself be dragged into this slough. In that sense, the debriefing process conducted by an experienced agent of change was fundamental to shaping my actions.

At this point I recognised that the correct dose of support from the facilitator would induce the search for meaning and finally the internalisation of the process. That is, they would have the opportunity to start a deep process of change: The change in values.

In other words, I changed my pace to suit theirs. So, instead of acting as an expert facilitator imposing the rhythm of the process, I accepted their withdrawal gracefully, and recognised that the 'optimal number' of participants could be different from what had been envisaged earlier. This was an important turning point within this

project. That was the moment when I definitively established the collaborative aspects of this project in opposition to top-down ones.

Ultimately, the number of projects that have been developed or even concluded will still represent an indicator of the level of commitment of the participants. Hence, as explored in the literature review, this model follows the pattern of the 'Daisy Model' and the acceptance of withdrawal was part of the lessons learnt.

More importantly, participants who withdrew at this point did so mainly because of the difficulty in getting professors outside of the ARG to be involved in their projects. This could represent a source of constraint for the whole project so that their withdrawal would bear fruit later as discussed in chapter 6.

5.2.3. *Mobilization: Second Cycle*

Based on the initial plan of action and my own experience after these two cycles (first mobilization and implementation) I established the assumption that in order to be successful this second cycle of mobilization should: a) stress the lessons learned from the first cycle of mobilization (see section 5.2.5); and b) address the needs of the Implementation phase (see section 5.3.4) and the forthcoming Continuation phase. That is, the second mobilization should foster the commitment of the participants and deepen their involvement in the project. Furthermore, the volunteer participation, institutional representativeness and non-political characteristics of the first mobilization needed to be pursued again.

Thus, to start the second cycle of mobilization, instead of a new series of presentations there should be a series of nominations, where each existing participant should nominate at least one other professor to take part.

After the establishment of the second group of 'volunteers', the following stages should take place as they had been conducted in the first mobilization, namely: a) final interview; b) training needs assessment; c) training; d) self-selection; and e) elaboration of an action plan.

5.2.3.1. *The nominations*

The nominations would be an indicator to measure the impact caused by each participant, against the results showed in Table 5.10 and Fig. 5.4, in terms of their performance and capacity to advocate - individually - the use of Action Research.

Unfortunately, the low number of nominations that were made (see Table 5.11 below), fewer than two for each participant, reinforced the low level of

relationship found in the sociogram analysis conducted at the end of the first cycle of mobilization (Fig. 5.1) and at the middle of first implementation (Fig. 5.5).

Table 5.11: Number of nominations made per participant.

Participant	Number of Nominations
1	2
2	2
3	3
4	1
5	3
6	2
7	2
8	1
9	1
10	2
11	1
12	2

In the end, this number of nominations demonstrated that the actions developed so far were not enough to overcome the barriers represented by the individualistic behaviour and the isolation of professors at UFRA.

As at the first Mobilization, once more I had to assess the risk of under recruitment expressed by the signs of loosing interest for their projects shown by some participants. Also, I assessed my capacity to facilitate the process of adoption of Action Research through the simple analysis of the time spent on this activity daily and weekly. Together, these assessments not only gave me the degree of independence and autonomous behaviour of the participants, but also worked as an element of pressure and concern against the goals established and the timescale of the whole project within the backdrop of political dispute.

So, in relation to my capacity to cope with the facilitation role, only participants 7 and 2 were demanding my full assistance regarding their AR projects. Participants from the A group were currently just requiring short tutorials in order to report their latest actions and to discuss specific points like a question to be used in a questionnaire or interview. Only occasionally did these participants require 100% of the 1.5 hours previously planned for tutorials. In the end, I was spending only 60%

of the time allocated for this activity according to my initial planning. Finally, the nominations did not affect the political scenario regarding the WARG representativeness as shown in Table 5.12 below.

Based on this analysis I decided that the second cycle of mobilization could be conducted with approximately the same number of participants as the first cycle of mobilization. This is how that moment was recorded in my diary:

“So far the strategy to work with volunteers, after all, has proved to be efficient in retaining people really committed. Everyone made at least one nomination. I hope that this strategy does not bring some sort of ‘power over’ like in the Pro-UFRA project when the power of managers was used to encourage participation that led to a high level of participation; nevertheless, it did not mean commitment”. (Diary entry, March 2005).

The concern at this moment was about the power relationship, as quoted from my diary. Also, this statement refers to the possible political bias because within UFRA’s context, there is visibly an upper hand from older professors in relation to the younger ones based on respect but also due to the fear of punishment. Moreover, inside of the WARG I needed to break this dominance of the eldest by fostering the egalitarian process of discussion and decision-making through communicative acts (see Freire 1971a in section 2.3) in order to avoid what Kowalski (2006) called ‘practices of exclusion’ (see Table 2.1 in section 2.3).

So, my instructions to the participants followed this concern and tried to avoid the use of different sources of power, especially the use of ‘power-over’, that could be used by the older participants. For instance, the nine participants that belonged to the cast of those with more years as professors (Table 5.4) could easily and inadvertently use this. So, instead of a nomination this process could be transformed into a mandatory action with those so identified being motivated by the imposition (even though involuntary) caused by the older professor participants.

As showed on Table 5.11 the overall process resulted in 22 nominations. Note that I was satisfied with the number of nominations, maybe because I was expecting fewer than 22. Additionally, to my surprise, participants from the B-group were those who presented most nominations, followed by the M-group.

Another 5 professors also asked to be involved in the second group of participants. Amongst those, 4 were former volunteers from the first mobilization cycle and one had heard about the second ARG from a professor nominated and decided to come along without further invitation. As shown within the first group of volunteers, the second group also represented a fair spectrum of the whole institution (Table 5.12).

Table 5.12: Number and profile of volunteers at the second Mobilization.

Phase/Stage	Volunteer	Gender		Institutes of UFRA			Years as professor		
		Men	Women	ICA	ISPA	ISARH	>15	5 to 14	<5
Mobilization/ Recruitment	27	18 (67%)	9 (33%)	9 (32%)	5 (20%)	13 (48%)	11 (40%)	11 (40%)	5 (20%)

Similarly to the first cycle of mobilization, at this time the volunteers could only be labelled as enthusiasts. Consequently, before the start of the training sessions all nominated professors were interviewed in order to be considered real volunteers. As expected, nobody refused nomination so that the training sessions started with 27 volunteers.

These are some examples of the responses from the nominees to my question “*Are you still interested in being a volunteer?*” after a brief explanation about the project:

“Absolutely! I am following the work of participant 11 and it is great! I want to do the same in relation to my own subject” “Is there something else to know about it? ... because I came freely because I think it is a opportunity to develop and improve ourselves, so, why not?” “Yes, you did not add nothing in contrary of my initial thoughts ... that is a opportunity to improvement ... I was a volunteer in the first group but I did not have idea of the whole process so I decided to wait for the first results, but now I was convinced by participant 4 that it really works” (Diary entry, March 2005).

Although these examples clearly could not be understood to be definitive indicators of commitment, it is also clear that this was perceived by me as an indication that the participants were really beginning to spread the concept of Action Research more widely.

After the interview process the continuance of all those nominated reduced my concern about the use of power-over in order to force them to participate in the project. It also proved the value of the strategy I had adopted in order to retain only those fully committed and to avoid the simple enthusiasts. Nonetheless, once more the number of volunteers was greater than my capacity to facilitate them so that a new process of self-selection needed to be undertaken.

5.2.3.2. The training

Due to the success of the training stage of the first mobilization the same strategies in regard to the training program and the process of self-selection were repeated with the second group of participants. In other words, I allowed all

nominees to take part in the training. Thereby they would be able to have a much deeper picture of the process of adopting Action Research so that I could anticipate some withdrawals at the end of the training sessions.

However, differently from the first group, I did not use the sociogram to organize the two day sessions. Instead, I offered those three topics previously selected by the participants of the first SARG's (Teaching methodology, Student motivation and Assessment). This had, essentially, the objective of strengthening these groups formed during the first mobilization.

After a short lecture about AR I allowed the new participants to select a topic from those three as the subject of their own Action Research projects. I felt that this was justified since the topics on offer had been chosen by the professors and not by me. Also, the objective of this strategy was to strengthen those SARG's established at the first mobilization and carried on in the implementation phase. Thus, I focused the first session of the second day on identifying their areas of interest amongst those that the first ARG was already working through. In this way each new volunteer was drawn into the subject researched. This was intended to provoke, more quickly, the effect observed in the first group when some volunteers (during the first day of training) and the participants of the B-group started to lose interest due to the costs of the process.

Probably due to the fact that they already had some sort of contact with the AR methodology through their dealings with the first participants, the process of training was much more straightforward. Thus, because it was less time consuming than in the first cycle of training, the second part was modified to the presentation of a case study followed by an exercise when all volunteers had to prepare a draft of an AR project focusing on the design of data gathering instruments. Again, this strategy followed the objectives and concerns presented in the last paragraph.

Inevitably, they did not complete the task by the end of the second part of the training so that they had to present it during the third part of the training - that is during the following month. As expected, the realisation of the costs reduced the willingness of some nominees as had happen with the first group. Together with the appointment of other participants to some administrative positions, these factors were responsible for reducing the number of volunteers to 11 by the end of the four weeks induction, as showed in Table 5.13 below.

Table 5.13: Profile of volunteers at the second Mobilization.

Phase/Stage	Volunt'r	Gender		Institutes of UFRA			Years as professor		
		Men	W'mn	ICA	ISPA	ISARH	>15	5 to 14	<5
Mobilization/ Recruitment	27	18 (67%)	9 (33%)	9 (32%)	5 (20%)	13 (48%)	11 (40%)	11 (40%)	5 (20%)
Mobilization/ Training	11	7 (64%)	4 (36%)	5 (46%)	1 (8%)	5 (46%)	3 (27%)	3 (27%)	5 (46%)

In contrast to the first mobilization, the 11 volunteers that successfully completed the entire training program were predominantly from two of the three institutes.

The ISPA had only one professor (8%) amongst the total number of participants by the end of the training of this cycle of mobilization, against 30% (6 professors) during the first cycle of mobilization (see Table 5.4). This shows the isolation of this institute in relation to the rest of the university. Although, it can also be considered in part as a consequence of the poor development of the AR projects by the first participants from that institute (participants 1, 2 and 5).

Another important phenomenon noted at this second mobilization was that, despite the greater number of nominations presented by the participants from the B-group, the 11 volunteers who finished the training came predominantly from the nominations of those participant members of the A and M-groups. Altogether, these characteristics suggested that the participants from the 'A' and 'M' groups are responsible for the institutional impact of the project and more importantly, the subsequent withdrawal of participants from the B-group did not represent a major impact for the continuation phase. In my diary I recorded my feelings with these words:

"I think that the recognition of the efforts presented by the participants conducting their AR projects is paying dividends. I am strongly confident that the ARG is growing both in numbers of participants and in quality of the projects. I am still deeply concerned about the decline of the number of participants, mainly because the participants from the B group finally have decided to withdraw, however, despite my initial shock, the results of the second cycle of mobilization are indicating that I should focus my attention, as a facilitator, on the work developed by the members of the first and second group." (Diary entry, May 2005).

Clearly, at this stage I was firmly convinced that the withdrawal of participants from the B-group would not represent a major threat to the sustainability of the

process. However, the following facts would show that this is not totally true and I will explore the reasons for that in Chapter 6.

By the end of May (2005), all volunteers from the second Action Research group took part as participants in the first meeting of their small Action Research groups, according to the research subject chosen. Thus, again, two different phases were running concomitantly. What could be viewed as apparently an insignificant overlapping process represented a major difference in relation to the way that the mobilization would be conducted and facilitated during its latest stage. During the first mobilization I facilitated the whole process as the ICAF, however, during the second cycle of mobilization participants 4, 8, 10, 11 and 12 naturally joined in this responsibility so that the final stage of the training to produce the action plans was co-facilitated.

Thus, more and more the process moved from the directive to the collaborative approach. Nevertheless, this collaborative praxis remained restricted to the SARG's, as I could not observe the same level of collaboration in relation to professors in the WARG.

5.2.3.3. The profile of nominees

As in the first mobilization, to analyse the volunteers according to their political background helped to set a baseline regarding the overall development of the project. Table 5.14 below shows that there was, again, a similar pattern of distribution. The archetypes 'Challenger', 'Partner' and 'Antagonist' remained predominant. Nevertheless, it is important to note that the archetypes 'Aide' and 'Adherent' had a substantial reduction, while the 'Weathercock' was not present neither was the 'Peripheral'.

Table 5.14: New volunteers from the different archetypes in each stage of the second mobilization.

Archetypes	Mobilization Stages		
	Nomination	Individual Interview	Training
Aide	1	1	-
Challenger	6	6	4
Adherent	1	1	-
Partner	6	6	4
Weathercock	-	-	-
Antagonist	8	8	3

Thus, it seems plausible to assume that those professors from the 'Antagonist' archetype must be predominantly from the 'Challenger' archetype of the rival political group.

As a whole, this result is a strong indicator of the unbiased political scenario achieved so far. Despite my concerns with the proximity of the elections the participants of the WARG remained able to develop their projects with professors from both political sides.

Also, the results shown in Table 5.14 clarify the necessity of actions to institutionalise the adoption of AR. That is, the absence of the "Peripheral" archetype demonstrates that to overcome the political bias it is not sufficient to ensure the wider institutional impact of the project. As this archetype is represented of professors out side of the political division, nevertheless they remained absent from the group of professors practicing AR.

The result of the second sociogram (see Fig. 5.5) together with the result of a survey (Appendix 'H') regarding the number of professors who were participating or who knew about an AR project developed by one of the participants (see Table 5.10) showed me that the impact of the projects carried out by the participants and my own actions as an ICAF were very limited and needed to be extended in order to develop sustainability for the whole process. In fact, the number of volunteers nominated (22) represented almost exactly the number (20%) of professors within the whole university who were aware of the Action Research project between the end of March and the beginning of June 2005.

Due to the fact that in July there are no academic activities, the second ARG had 8 weeks in total of further training. Then in August 2005 the second cycle of mobilization was completed when all 11 participants presented the latest version of their AR projects during each SARG meeting.

5.2.3.4. The lessons learnt

In this section, once more I will present the lessons I have learnt by putting my findings and reflections against the theoretical assumptions that I had made at the beginning of the second mobilization phase.

The main difference between the first and the second mobilization was the proposition that nomination should replace the presentations. This strategy addressed the two requirements for this phase established at the very beginning of section 5.4, namely: a) to stress the lessons learned from the first cycle of mobilization; and b) to address the needs of the Implementation phase and the forthcoming Continuation phase.

The nomination was a strategy to deeply involve the former participants so that they should be perceived by the new participants as co-responsible within the process of recruitment of new participants. In addition, their involvement would reduce the political bias by increasing the possibility of engaging professors from all political sides. Also, due to the fact that they were a group representative of the whole institution, they would be able to recruit professors that would maintain or enrich this representativeness.

Reflecting upon the whole process so far it seems to me that the use of nomination was, indeed, able to get a group of professors representative of the whole university. However, this strategy brought evidence of the lack of capacity of the WARG in relation to spreading the concepts, ideas, goals and values of the use of AR. As a result the project had not created so far an institutional environment for the wider use of AR. This was clearly evidenced because those professors nominated represented at that time almost 100% of those who knew about the AR project at UFRA which meant that less than 20% of the professors were aware of the project.

In regard to the concern over 'the optimal number of volunteers' emphasized during the first mobilization, at this stage of the project it was clear that this number must be established in accordance with the capacity of the facilitator to manage and not in relation to the potentiality to cause an institutional impact. The wider impact of the project seems to be much more related to the archetypes of the participants. In line with this conclusion, it is possible to note the absence of archetypes potentially threatening to the objectives of the project, such as 'Adherent' and 'Weathercock'. Nevertheless, it also prevented the 'Peripheral' archetype from becoming involved.

Finally, the needs of the implementation and continuation phases were potentially addressed when the process of nomination strengthened the SARG by involving professors with some degree of knowledge about the activities in development by the former participants.

5.2.4. *Implementation: Second Cycle*

Based on the initial plan of action and my own experience after these three cycles (first mobilization, first implementation and second mobilization) I established the proposition that the second implementation should: a) stress the lessons learned from the first cycle of implementation; b) address the forthcoming Continuation phase. That is, I had to consider the same questions asked during the first implementation, namely:

- **How can I best support academic staff practitioners of Action Research?**
- **How can I ensure reciprocity and collective ownership throughout the project?**
- **How can I foster collaborative inquiries within the context of an Action Research group?**
- **How can I overcome the constraints to the use of Action Research as a vehicle of change in a university in Brazil?**

However, in contrast to the first implementation, some of the answers to these questions were already known. Thus, the objective of this phase also included development actions that would foster the sustainability of the whole project. Moreover, the search for: a) The development of a significant number of AR projects; b) The successful completion of a significant number of AR projects; c) The wider involvement of the other professors in the institution; and d) a change in the values of the participants, still remained on my agenda as an ICAF.

Nevertheless, my agenda also included: a) The avoidance of dependency, b) Individual and particular strategies of facilitation, and c) Management of motivation, as key elements to the successful conduct of this stage.

5.2.4.1. The execution

During the entire month of September 2005, the new participants were struggling with their initial doubts about the actual process for which even the best planning could not anticipate nor the longest training prepare them.

Meanwhile, the former participants were in different stages of finalising their Action Research projects. This was a period of intense activity for me as an ICAF because, simultaneously, the two groups were facing a moment of growing questions about Action Research. So, during the individual tutorials they were full of questions.

“Definitively, I could not have been able to handle this moment of the project without the support offered by the first participants.” (Diary entry, Sept. 2005).

As can be noted from the quotation above, the new participants were into that phase already experienced by the former participants. This crucial moment should once more be carefully managed in order to avoid the creation of dependency.

To return to June, during the first SARG meeting the professors from the first group of participants dominated the actions, conducting the discussions and offering

support for the new participants and this is how my observations were recorded in my diary:

"The first participants have become facilitators of the new participants. That was the first opportunity where I could be almost just an observer. I am very proud of their performance and I can feel that they are speaking with great confidence and enthusiasm." (Diary entry, June 2005)

Later, during tutorials conducted at the end of June, July and August, all participants reported that they had had support from the participants of the first ARG, mainly from participants 4, 7, 8 and 10 as indicated within the statements extracted from the interviews below:

"Don't worry Marcel, I have had the support of participant 8 so that I believe my action phase is ready to start." participant 16

"I am not sure if it's correct but according to participant 4 this is how she conducted the interviews with students ... yes, I borrowed these articles from participant 7 and it was very helpful ..." participant 20

"We had a kind of informal meeting on Tuesday (16/08/2005) because we (participants 15; 18; 23) were very confused about what is ethically acceptable in terms of the involvement of other professors and their students ...participant 10 showed that paper you indicated and also suggested to discuss with participant 21 ..." participant 18 (Extracts from tutorial interviews, August 2005)

I also observed that from the beginning of August, more and more participants who had withdrawn in May were in regular contact with members of different SARG's, questioning, discussing or simply talking about their projects. However, by that time a strange mix of feelings prevented me from recognising this important factor that will be explored more fully in Chapter six.

As mentioned before, ironically, together with this feeling of improvement came the fear of an initial concern:

"How can I ensure that this friendly support will not develop into dependency?" (Diary entry, September 2005)

To keep asking questions was my predominant role in relation to the former participants whereas in relation to the new participants my role still remained a balance of 'telling' and 'asking'. This would prove to be enough to prevent the creation of dependency in relation to the participants and the ICAF. However, how could dependency amongst the participants be avoided?

Despite the differences between the first and second cycles of mobilization and implementation approaches, in the end, the second group of participants,

developed the same pattern observed for the first group, that is, after a period of euphoria the recognition of the difficulties made some participants slow down their pace.

Maybe due to the influence of participants from the first cohort, and/or because I was determined to reduce to a minimum the actions of telling in the second iteration, participants 13, 21 and 23 demonstrated the same behaviour showed by participants from the 'B' group (see section 5.3.2). This happened one month earlier than in the first group, so that by the end of September participants 13, 21, and 23 during their individual tutorials manifested the desire to withdraw.

Although I was expecting this kind of similarity between the groups, the doubt about the process of mobilization in relation to the capacity to select and retain those committed and avoid those enthusiasts was questioned once more. For now I could only accept these withdrawals as part of the process of selection envisaged and a possible consequence of the short period of training available.

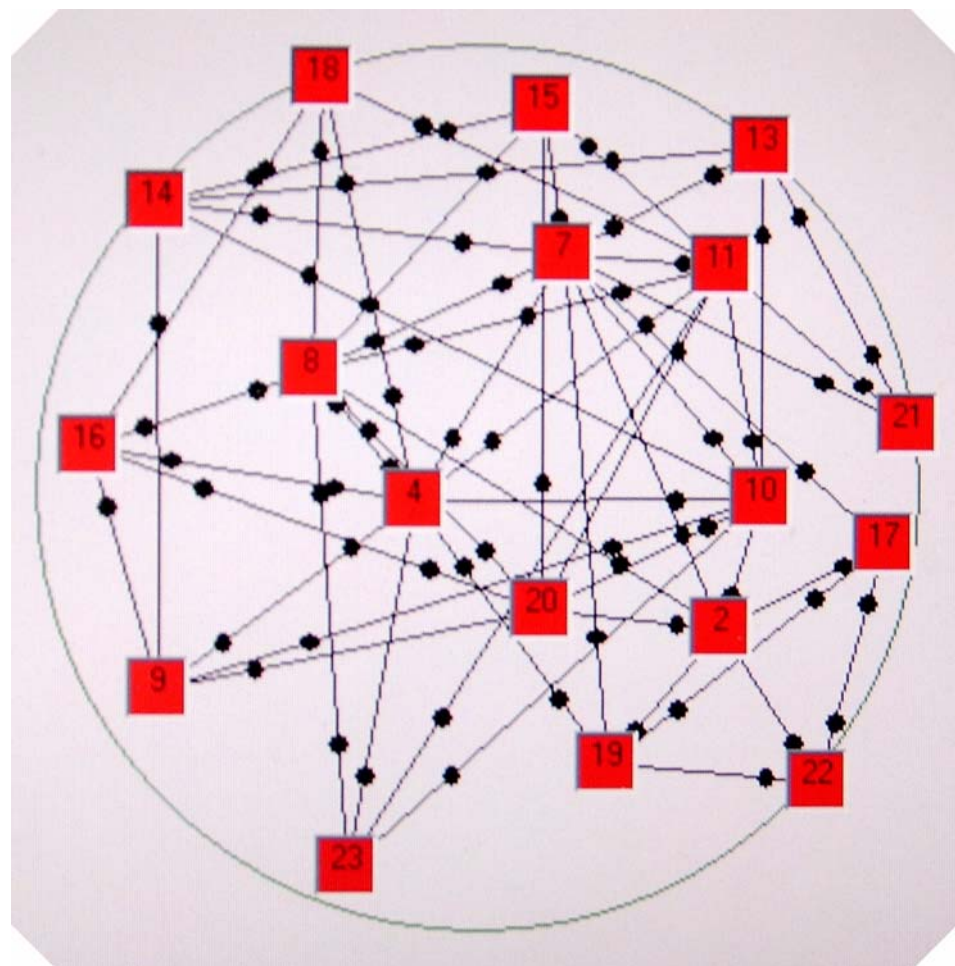


Figure 5.6: Sociogram analysis at the middle of the second cycle of Implementation. Lines with two dots express mutual indication. Lines with a single dot indicate the desire of the closest to interact with the furthest.

5.2.4.2. The sociogram analysis

Meanwhile, the third sociogram analysis (Fig. 5.6) started to show a pattern regarding the way that the participants were relating to one another that was not modified by the presence of the new participants. There was not an obvious distinction amongst the three thematic groups. On the other hand, the withdrawal of participant 12 in August 2005 seems to have provoked a modification in the way participant 8 behaved and was perceived by the others. In fact, participant 8 moved from an almost isolated position at the beginning of this project to a central position at this crucial moment.

At this stage of the project the WARG apparently had three potential leaders represented by participants 4, 7 and 8 from the first group and participant 20 from the second group, who are positively linked with at least two different thematic groups (Fig. 5.6).

However, more important than seeking for a leader or leaders, within a classical group formation (Armstrong 2003) design, is the fact that the positive interactions that were happening had the important characteristic of overcoming the political boundaries observed during the early stages of this project and described within the first mobilization and implementation cycles. At this stage of the project, there was no longer room for political discussions inside the group as observed outside the group. All participants were deeply involved in the discussions about their findings so that I could observe very little mention of the political scenario and when it happened I did not observe the hidden feelings noted during the initial meetings of the project (see section 5.2.1.3).

Interestingly, through Fig. 5.6 it is also possible to note that there were no isolated participants as viewed in the first and second sociogram (Fig. 5.1 and 5.5) probably due to the fact that they were all nominated by some participant or were spontaneous volunteers³⁵.

Also of interest was the fact that participants who had withdrawn in May, as well as participant 12, were mentioned by the participants in the questionnaire used to produce the sociogram, but not considered in the production of the graphic representation (Fig. 5.6). These links were not set in the sociogram as these professors were no longer considered as participants of the WARG. Nevertheless, these links were noted and investigated as showed in the next phase.

³⁵ Participants that heard about the second mobilization and decided to take part in the AR training as volunteers without any further invitation or nomination.

The outbreak of a strike on 4th of October 2005 delayed the start of the academic semester, and likewise the start of the action phase of the second wave of individual AR projects from the second cohort of participants. However, even without activities regarding the implementation of the new AR projects, this period (from October to the beginning of December) was marked by intense discussions within the WARG regarding UFRA's issues at large such as: course relevance, updating, coordination and assessment; administrative roles and their affects upon the professors, research and post-graduate programmes; institutional finances; etc. These discussions demonstrated a change in their discourse in relation to the way that participants were influenced by the adoption of AR within their daily activities. For instance, I would like now to highlight how some of them demonstrated that the discussions during these months were more than academic and addressed the whole of institutional life.

More importantly, participants of the WARG had showed that they were changing their attitudes not only in relation to the process of teaching and learning but also in the way they interpreted the whole university from a different perspective and a different paradigm, using new concepts and adopting new subject positions (see Hardy & Phillips 2002, in section 2.3.1). Their discourses, consequently, were in line with an agenda of change in concepts and objectives:

"This project has to be more than an academic experience ... the participation of course coordinators during the symposium will create the possibility to rethink some practices adopted currently. Your results, for instance, (talking about the AR project of participant 4) is a clear indication that we need to change the form of assessment. My own project can contribute with the curriculum reform in terms of the sequence of the disciplines.... " participant 8. *"That is a key moment for a new approach ... we all (participants) have good results to show ... I am convinced that this is the right path to be followed. Yes, we need to show that it is possible to improve the quality of assessment, the quality of our class..."* participant 11. *"What is clear to me is that we already have caused some changes. I am a prove of it!! As all participants from the second group I was motivated by the possibility of professional development and the results that I observed as well as by the enthusiasm demonstrated by the students in relation to your research ..."* participant 17. (Diary entry, November 2005)

5.2.4.3. The withdrawals

The withdrawal of participants 13, 21, and 23 reduced the number in the second ARG to 8. Again, the reasons that led to this decision were investigated during a formal interview with each participant that was conducted as soon as the normal activities were resumed.

For the three participants that withdrew I asked those same questions used with the first group and once more they made reference to the reasons presented by the non-volunteers at the very beginning of this project as the factors that prevented them from getting involved.

On the other hand, this time they clearly express the desire to play a peripheral role within the project, participating in group discussions and meetings, using the results of other participants to test their own realities.

"I understand the importance of this project but I do not have time to execute my own project in the way that it has to be executed. I thought I had, but I hadn't ... The results presented by the participants during the seminars are brilliant and as you know I am integrated with the project of participant 11 and it is inevitable because we share the responsibility for the module³⁶, so that I think that I can still use action research without having to have my own action research project." participant 23

"Well, it is not a simple question so I cannot give you a simple answer er I don't know er Ok!!! Let me start again. First, it is clear to me the improvement of participant 10, the process of³⁷ ... is better and better. My own process of assessment is improving after I started to use insights collected from the project. What I am trying to say is that I underestimated the amount of work necessary to do it because as a participant in this project I firstly thought that it would be the same as in the one that was conducted by participant 10. However, I will not be able to continue and before I had to stop in the middle of the process I have decided to stop now. As a participant I know the whole gamut of expectations created with this kind of project I am not intending to do that with the students and some colleague. ... Please do not think that I do not believe that it is necessary for me. I believe that we did not have the opportunity to learn about the teaching process and this research had blustered some of my previous concepts. ... I hope I can convince other colleagues to go to the

³⁶ For ethical reasons I can not identify the module

³⁷ For ethical reasons I can not identify the topic

open seminars..., but for me I guess I could continue to help participant 10 with his project.” participant 21.

“I will be honest with you as you have been honest with me. You are really pushing me against the wall with this question, No, no, no it’s not your fault! I said this because I am feeling guilty and sorry to disappoint participant 2. However, I am sure that he knows that I do not have time after the modifications made by the course coordinators. But I do not want to be out of this process. Can I be part of the process without an action research project? I mean, ... er ... we have to do things differently, specially here, so that I would like to be involved but I do not know how because I really do not have time” participant 13 (Extracts from interview statements, Dec. 2005)

5.2.4.4. The impact

The end of the first implementation cycle occurred during the middle of the second cycle of implementation. Thus, by analysing the data in Table 5.10 shown in section 5.2.2.2 and Table 5.15 presented below, it is possible to perceive the dramatic growth in the number of professors outside the group who knew about at least one AR project being developed.

This result reveals that the enlargement of the group is directly associated with the enlargement of the impact across the institution. In other words, when the number of participants doubled after the second cycle of mobilization the number of professors outside the ARG who knew about this Action Research project had also increased in, approximately, the same proportion.

Table 5.15: Outcomes of the second cycle of the Implementation phase.

Outcomes	Start of 2 nd Implementation	Middle of 2 nd Implementation
Number of participants	11	11
Number of AR projects being developed	11	8
Number of 1 st cycle AR projects completed	---	---
Number of professors outside the group who know about at least one AR project being developed	20%	55%

In December 2005, the regular academic year resumed, likewise the individual AR projects. December was also the moment of the debriefing encounter when for one week the whole process was debated, scrutinised and evaluated by the ICAF and the experienced agent of change.

As a result of this process of debriefing, the answer to the questions about dependency asked before returned. In fact, to avoid dependency I had first of all to recognise that this could occur at two different levels. Firstly in relation to the development of the individual AR projects by each participant:

"I appreciate the way that you are controlling us, not in the negative connotation of the word "controlling", rather you are a positive motivating power, you had a motivating effect upon us, boosting our confidence..."
(participant, 8) (Extract from interview statements, Sept. 2005)

Secondly, regarding the use of AR as a vehicle of change for the whole institution:

"Now you are a driving force because you are the person that is able to recruit more and more professors for this project." (participant, 11)
(Extract from interview statements, Sept. 2005)

The second level is most appropriately presented and analysed in the continuation phase so let me now present the results and consequences inherent in the first level of dependency.

As a whole, my actions in relation to the participants of the second cohort of participants did not change so that gradually I moved from telling what to do to asking what should be done. This strategy as presented before was efficient for the conduct of the first implementation cycle. However, now I needed to ensure that the former participants also avoided the same pitfalls represented by the temptation to tell other participants what to do as they took up the role of facilitators of the new participants.

One of the main characteristics of the AR process is to set and then answer a research question. However, how can we be sure if that was the right question? Having said this, my action as the ICAF was to keep asking the right questions for the participants in relation to their projects and their actions as members of the WARG so that the community of professional learning could be fully integrated in a continuous process of self-discovery and professional development. In simple words, my role at this crucial moment was to debrief the first cohort of participants in the same way that the experienced agent of change was debriefing me, so that the former participants could be able to ensure the necessary support for the new participants without creating dependency through their actions.

5.2.4.5. The lessons learnt

In this section, once more I will present the lessons I had learnt by putting my findings and reflections against the theoretical assumptions I had made at the beginning of the second implementation phase.

As portrayed in section 5.2.3.4, this time my assumptions were based on the strengthening of the achievements of the first cycle of implementation and the development of actions that should lead to the sustainable development of the forthcoming phases of the project.

In this regard, the balance of telling and asking during the tutorials proved to be a key element for the avoidance of dependency. It is probably better demonstrated by the development of the same pattern amongst the participants from the second group as that viewed with participants from the first group. That is, the group was divided into participants fully engaged and developing their AR projects, and other participants who were starting to demonstrate some degree of difficulty in developing or continuing with their AR projects.

As the second group of participants did not perform the whole AR cycle of their individual projects I could not conduct the full analysis of the group as I had in relation to the first group. However, the withdrawal of those three participants (13, 21 and 23), and the reasons presented by them to do so, was a clear indicator that the second group also presented some enthusiasts even after the whole process of mobilization. Consequently, at this point I could assume that the rest of the group would gradually be joining the 'A' and 'M' groups.

The most important lesson learnt from this phase of the project was about the importance of getting the existing participants into the process of training the new participants. This action gives to them the start for the development of the double loop learning (see Argyris (1999) in section 2.2). Thus, I could observe that they were starting to perform the actions I had as an ICAF during the early stages of this project. Furthermore, I started to play the role of the experienced agent of change. Thus, I hoped that they would be motivated to motivate the new participants in the same way that I had been in relation to them, and also that they would be able to act as leading forces in ensuring the sustainability of the project.

5.2.5. Continuation

Initially, as shown in Fig. 3.2 (see section 3.1), the continuation phase was planned to commence after the conclusion of the first implementation cycle. Thus, armed with the results of the individual AR projects, a series of actions would be

conducted in order to institutionalise these results and to pursue new participants for a new wave of mobilization and implementation phases.

However, as can be noted throughout this chapter, as soon as the project started the impact of some events, actions and the institutional scenario initiated modifications in the overall plan, and also forced a new understanding about the process of continuation. Thus, the continuation phase, in fact, should start almost concomitantly with the first implementation cycle (see Fig. 4.2) because the actions taken at that moment were not only attending to the needs of the implementation phase but also seeking to: a) promote institutional changes/impacts, and b) prepare the participants to replicate the whole process as new ICAF's.

5.2.5.1. A new perspective

However, to achieve these two assumptions the whole process and actions conducted since the first mobilization should be in tune with the continuation phase. For instance, the very first action of this project was to present it to the Rector and his rival. Initially, this action was envisaged as linked exclusively to the ethical consent that the project required and was grounded in the stage of introduction of the AR paradigm for the entire university. However, it was embedded in a volatile political scenario so that this action not only resulted in gaining consent to start the process but also in ensuring the relative and nevertheless necessary support from all political groups, especially due to the turnover that happened after the institutional elections.

Subsequently, but still within the first cycle of mobilization, the call for volunteers as opposed to a 'rational' selection of members for the WARG successfully garnered professors from different political sides, institutes, expertises and who had different experiences and expectations (see Table 5.3 section 5.2.2). Thus, this heterogeneous group of professors turned out fortuitously to be reasonably representative of the entire university so that, in the end, this ensured that the project was seen as being as unbiased as possible, thereby gaining sustainability for the initial stages of the project.

As can be seen, the entire process of AR occurred differently from how it had been envisaged and described through Figs 3.2 and 4.2, respectively. Nonetheless, this emergent approach does not overthrow the process described previously in Chapters 3 and 4. On the contrary, it represents the evolution of my thoughts as the process has unfolded until now. From the linear and discontinuous approach for change demonstrated by the 'Lewinian' expression 'Unfreeze-change-refreeze' (Schein 1995), now the entire process would be clearly perceived as cyclical,

ramified and continuous, that is having a structure more like a '*meristematic steele*' or a '*mandala*' (see section 2.2.4) than a single phased linearity.

On the other hand, as a living theory I could not claim that it represents the final word upon this issue. The actions are continuing so that this approach, in fact, represents a snapshot taken by this Action Researcher during the final reflection to conclude and present this thesis.

In analysing this new description of the approach used to introduce and to implement the use of AR within UFRA, there are actions that had impact not only on the mobilization phase but also over the continuation phase. In other words, these actions belong to both phases so that I can affirm that the continuation phase started concomitantly with mobilization. In fact, not only did it start at the same time but also was conducted in parallel throughout the process of mobilization and implementation.

The example of this parallel coexistence is represented by the actions inherent in the overlap between the implementation and continuation phases. For instance, the formation of peer groups or SARG that strengthened the group cohesion by increasing the number of mutual relationships, as demonstrated through the sociogram analysis (see Fig.s 5.1, 5.5 and 5.6).

Also, the meetings conducted with the WARG provided the opportunity for reaching consensus through the process of communicative actions³⁸. Therefore, these actions reflected upon the way that the group was perceived by other professors as well as how the group acted as a team in order to move from the individual impacts to the institutional provocation of change.

In this regard, it is important to highlight the attitudes of some participants during the period of the strike. On the whole, they reached a consensus that there was a serious threat to the quality of the learning process due to the way that the process of the strike was being conducted. In contrast with the vast majority of staff they started to advocate the interruption of the strike and used some results obtained through their Action Research projects to support their opinions, a clear indication that AR was becoming part of their daily activities and impacting upon the discourses at the institutional level.

However, this change in attitudes could not be and was not abrupt. So let me explain this process through the lens of the continuation phase actions.

³⁸ See Finlayson (2005)

5.2.5.2. A proper continuation

As mentioned before, during the first cycle of implementation, the threat represented by the decline of the number of participants provoked me to consider and in the end to carry out a second cycle of mobilization before the moment originally planned for it.

Initially, this action only had the purpose of coping with the imminent threat of under recruitment. However, the decision to conduct the process of recruitment through nominations made by the participants instead of a new call for volunteers bonded the new participants with the former ones. Furthermore, the process of nomination itself was the opportunity to reflect upon the impact of the project so far. This reflection gave me the first indication of the importance of the participants that belonged to the group that I have called the B-group.

This indication, however, was not enough to prevent the mistake of accepting but not understanding why these B-group participants had decided to withdraw. More importantly, I could not comprehend, at that moment, the role played by the B-group in relation to the overall project because at that stage I was thinking just in terms of the needs of the implementation phase.

Fuller understanding came later during the period of the strike (Oct-Dec 2005) when I observed that the participants of the B-group, who had already withdrawn, were still interacting with the other participants, asking questions about the project, giving ideas and, more importantly, advocating the use of Action Research as a tool for the professional development amongst other professors outside the ARG. In fact, although the new participants had come from those nominated by the members of the other two groups, those professors outside the ARG who knew the project were mostly 'evangelized' by the participants of the B-group.

That was precisely the moment when I took the first conscious action of the continuation phase: the action of inviting the participants of the B-group to rejoin the ARG by participating in the meetings and discussions without the necessity to conduct their own Action Research projects. What I call peripheral participation.

Thus, the doubts about the efficiency of the process of mobilization were finally overcome. The process was designed to and had retained those fully committed. The withdrawals represented the desire to play a different role rather than a lack of motivation as I had previously considered it to be.

The WARG was now set differently. The categories were reconfigured in relation to the role played regarding the continuation or sustainability of the project. There was a Core Group that represented those participants that were developing

their Action Research projects, providing new insights about the process of teaching methodology, professional motivation, assessment, etc. and above all providing winning examples that were responsible for the engagement of new participants. The Middle Group was constituted by participants that yet had not concluded the first cycle of their Action Research projects for different reasons, from lack of time to lack of knowledge, but were nevertheless still fully committed with the project and trying to complete their AR projects. Finally, professors from the former 'B-group' (participants 1, 3, 5, and 6) together with the new nominees who had withdrawn in similar circumstance (participants 13, 21 and 23) came to constitute a Shield Group.

Shield Group members were responsible for 70-85% of the positive answers to the question: "Have you heard about AR within UFRA?" This question was asked of professors outside the WARG, technical staff and students from 15th to 25th June 2005, 19th to 31st August 2005, 12th to 22nd December 2005 and 6th to 17th March 2006, through a questionnaire (see the full version in the appendixes) designed to measure the institutional impact of the project, the results of these surveys are presented in Table 5.16 below.

Altogether, these actions and the results obtained led to a scenario where 76% of the professors within UFRA were directly or indirectly involved or at least aware about one or more of the Action Research projects. This was a critical moment for the project because in exposing the project to wider debate and criticism we similarly exposed the participants. Therefore, there was an increase in the pressure on the results and the quality of the individual projects.

Table 5.16: Outcomes of the multiple phases until March 2006.

Outcomes	Start of Implementation	Middle of 1 st Imp. Cycle Start of 2 nd Implementation	End of 1 st Imp Cycle Middle of 2 nd Implementation.	Start of Continuation
Number of participants	12	12	23	23
Number of AR projects being developed	12	8	12	11
Number of 1 st cycle AR projects completed	---	---	5	5
Number of professors outside the group who know about at least one AR project being developed	---	20%	55%	76%

In March 2006 the symposium about AR was carried out. We received very positive feedback after the five presentations, which I exemplify by the request of the assessment committee (CPA) to receive further information about the Action Research methodology in order to support the program carried out by this committee.

Also as a result of these seminars, a third cycle of mobilization happened. This mobilization *per se* is the major indicator of the sustainability of the process as this time it was happening based on what I called a purely voluntary, almost spontaneous mobilization. That is, there was neither a call for volunteers, nor nominations, nor a single mention about new volunteers. In fact, this time the new volunteers were intrinsically motivated and this motivation was awakened by an external motivator represented by the seminars delivered by the participants during the open symposium.

This represents, ultimately, the end of the first cycle of my own action. Eventually, some participants (3, 5, 12, 15, and 22) decided to temporarily stop completely their activities in relation to the ARG. However, none of them related problems about the AR methodology or the approach used by the ICAF. In fact the reasons presented were family and health problems for participants 5 and 12 respectively, whereas participants 3, 15 and 22 withdrew because they had become directly involved with the administration as senior managers so that they claimed that their involvement could inhibit other professors from taking part in the WARG.

Thus, these withdrawals could not be perceived as a setback. On the contrary, this was the first sign that the managers could be co-opted to adopt AR methodology as a tool to manage the institution. In other words, this represents a new phase in the relationship between discourse and power (Hardy & Phillips 2002). By communicating their actions, participants started to demonstrate their desired ends through the rationality of the arguments presented (Habermas 1990).

Through the values, concepts and subject positions assumed as a consequence of their research and continuous discussions, the balance of power within the institution started to change. This new discourse could initiate a new social reality (Hardy & Phillips, 2002), avoiding the practices of exclusion (Kowalski 2006) presented in Chapter 2.

The final sociogram analysis (Fig. 5.7) shows that, gradually, participants 4 and 8 are becoming the natural leaders of the WARG and potentially new ICAF's. However, in order to play this role within the institutional context these participants will need to be ready to follow the core principles that will be discussed in the following chapter.

Also Fig. 5.7 confirms that the approach followed successfully overcame the initial barriers that prevented the professors from being integrated as a team. This can clearly be seen from comparing the first sociogram (see Fig. 5.1) with this latest one where the group has gradually grown in the level of interpersonal relationships and at this stage, achieved a standard where every single participant has at least the same number of mutual interactions as observed for the most popular (leaders) at the beginning of the project.

The remaining questions at this stage are, inevitably, about the sustainability of the whole process and its dependency on the ICAF.

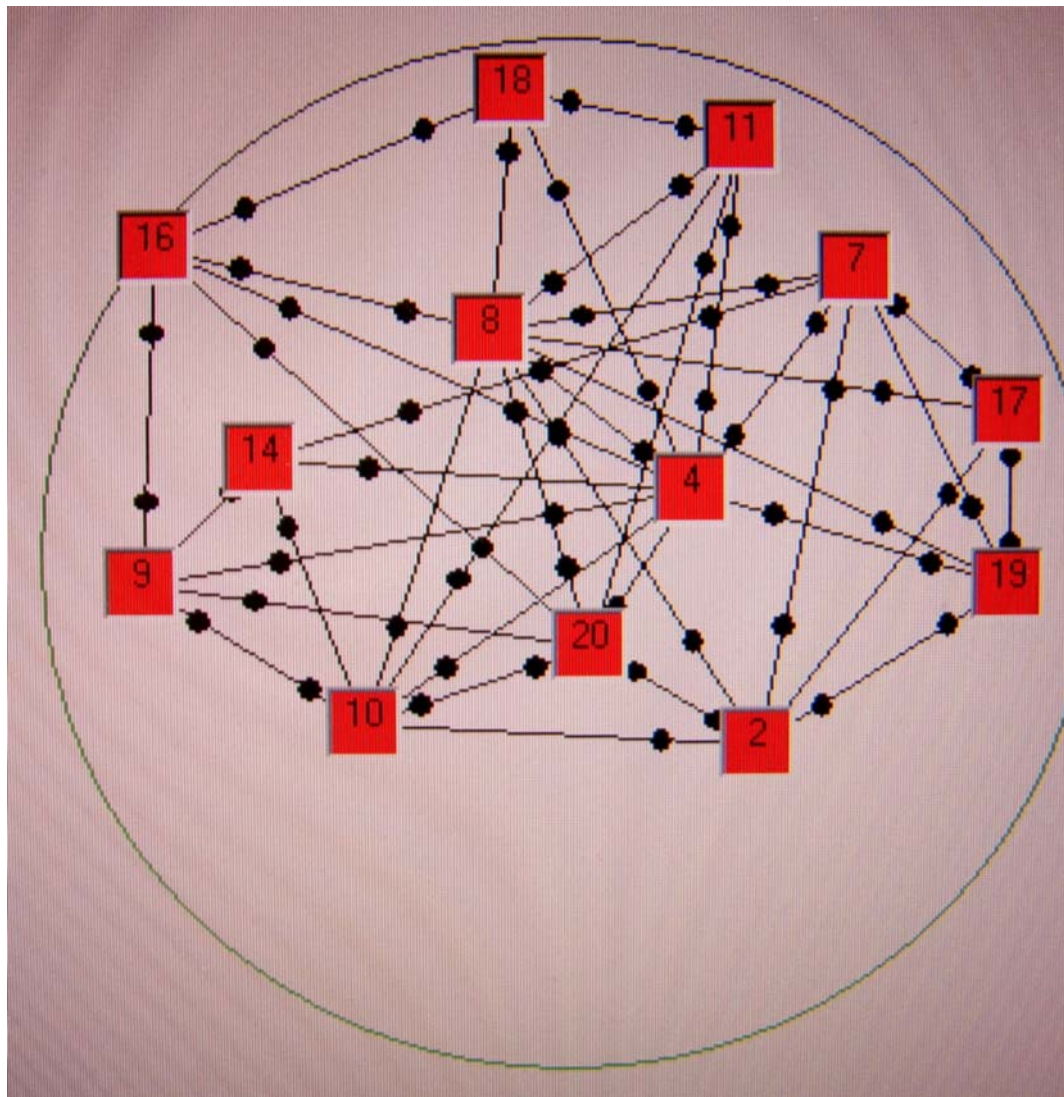


Figure 5.7: Sociogram analysis at the end of the first cycle of the introduction and use of AR by professors of UFRA. Lines with two dots express mutual indication. Lines with a single dot indicate the desire of the closest to interact with the fairest.

I strongly believe that in the light of the results shown so far the process appears to be potentially self-sustaining. Nevertheless, the issue about dependency has to be addressed according to two different perspectives. Firstly, there is the potential dependency contained within the execution of the individual AR projects. I am confident, according to the data presented here that there is no possibility whatsoever of this happening. Nonetheless, it is a daily task for me and for the former participants to keep this status in relation to the new participants.

Secondly, there could be the possibility of the whole process collapsing due to the dependency upon the actions of the agent of change. However, as an ICAF, concurrently a professor of UFRA, there is the absolute certainty that the process will continue as it has already been requested by the participants during the last meeting in March 2006³⁹.

“There will be two moments within this university: before and after action research. So, Marcel, you have the obligation to continue this process when you come back ... “ (participant 4)

“ ... its difficult we all in this room know that there are colleagues that will never be involved and our managers are not all prepared to accept new ideas as we noted during the seminars ... ” (participant 2)

“ ... however, we have to continue and to insist ... “ (participant 18) (Diary entry, March 2006)

These statements, in particular that from participant 2, also show that the characteristic of relying on the senior managers still persists in the same way that tempted me to use them in the middle of the first cycle of implementation. Thus, I am convinced that the process of institutional change through the introduction and the use of Action Research depends on my participation still. However, I cannot call it dependency but a temporary adjustment of convictions.

5.2.5.3. The lessons learnt

The initial assumptions in relation to the objectives of the continuation phase, namely: a) institutional changes/impacts, and b) prepare the participants to replicate the whole process as new ICAF's, seems to be fully achieved.

The symposium delivered by five participants brought institutional permeability to the AR projects. The interest demonstrated by members of the assessment committee was the first indication of the institutional impact of the project. Finally, the involvement of 76% of professors with some sort of action related

³⁹ Before the withdrawal of the ICAF to write up the project.

to the project placed the WARG in a position to really start to impact upon the institution.

In addition, at least two of the participants (2 and 8) appear to have started to play a similar role to that played by me at the early stages of this project. This shows the success of the approach adopted to facilitate the use of AR amongst professors at UFRA. More importantly, the third mobilization that had just started represents a milestone for the sustainability of the overall process when new participants gradually become engaged without any further invitation.

However, during this phase of the project I started to realise that I also had changed. Initially, my role was the facilitation of AR and the adoption of AR itself as the methodology to investigate the process of adoption and implementation of AR at UFRA. Currently, although some of my initial assumptions have been confirmed, as described in sections above about the lessons learnt at each phase of the project, others proved to be inappropriate.

Importantly, I realise that I had learned the lessons and had now moved from the position of facilitator to an experienced agent of change. That is, I started to play the role played by my supervisor in relation to the participants, who themselves are starting to play the role of facilitator. Hopefully, this chain reaction will lead to further institutional change in the near future.

5.3. *Wider Organizational Impact*

Between the presentations to the Rector and his rival and the symposium and the five seminars delivered by those five participants that concluded their AR projects, it is clear that this project has provoked small changes or at least stimulated discussions and deeper reflections.

The first discernible impact on the wider institution was observed only after the first results obtained by the projects were presented. These small 'victories' had a stimulating effect even amongst the most sceptical professors. The gradual involvement of the community of professors evidenced in Tables 5.10, 5.15 and 5.16, was followed by the intensification of the discussions about the themes investigated by participants within their AR projects.

In my observations I noted that the course coordinators became gradually more and more aware and in contact with participants. For instance, participant 4 reported to me during an informal conversation, at the end of an SARG meeting conducted in April 2005, that the course coordinator of Agronomy, asked to be closely informed about the results obtained because he was considering suggesting that other professors with similar situations adopt the same strategy in their class.

“Marcel, I would like to ask your advice about something that occurred last week. ... he asked me to inform him about the results of my AR, but I am not sure if it is ethically correct. ... OK. I was really looking for means to involve more professors” participant 4. (Diary entry, April 2005)

In August, participant 8 conducted a series of presentations on his findings as part of the strategy envisaged in his AR, thus submitting it to the criticism of a wider group. Some professors seemed to receive the findings positively as they asked successively questions about the methodology and the implications of those results in relation to the motivation of students in class. In the end, the presentation that should have taken one hour was extended for the whole morning. The most tangible result was the promise of the course coordinator to adopt the ideas discussed during that morning as part of the base line for planning the new curriculum.

Furthermore, after the presentations delivered during the symposium the president of the Internal Assessment Committee (CPA) asked me to group all the results achieved so far by the participants so that he could use them as part of a report to be presented by the committee to the Rector. This was the first official organizational acknowledgement and an indicator of the potentiality of the wider impact of this project.

Later on, participants 3, 15 and 22 became part of the senior management staff. Their nomination was interpreted by them as a consequence of their involvement with the AR project. To me, this ratified the potentiality of this project to bring about a process of institutional change in a way in which the power structure is rebalanced, not by a process of revolution, but by change in concepts and objectives through a new discourse that was constructed by exploring professional practice.

In the next chapter I will explore my reflections about the construction of this project, that is, it will explore the lessons learnt in the second level, the AR level. Thus, a model to introduce and adopt AR as a methodology for organizational change within the context of High Education in a Rural University in Brazil will emerge.

Chapter Six

6. Conceptual Contribution

In the previous chapters I began by trying to illustrate the backdrop of this study and the fundamental theory that provided support to the field work. Then, I described the methodology and the methods adopted to conduct the study and collect and analyse the data, which I then presented in chapter five. Now, in this chapter, I want to discuss some key conceptual features that emerged from this experience that I believe represent a remarkable contribution to the field of Action Research and its adoption as a methodology capable of bringing about institutional change both within the context of a Rural University in Brazil and possibly beyond.

I will start by presenting the impact of these principles upon my understanding of the model adopted to introduce and use AR within UFRA and by proposing a modification of the Daisy Model (Melrose & Reid 2000, see section 2.2.4) into what I call the Flower Model. This modification is, in the first instance, case specific but I believe it may have wider applicability.

Next, I will explore the framework developed to introduce and adopt AR as a methodology to provoke a sustainable process of change within this context in relation to Lewin's Unfreeze-Change-Refreeze model and Fullan's recapitulation as the Mobilization-Implementation-Continuation model. Finally, I will review my initial understanding of the overall process and how this has led me to acknowledge the principles at the heart of the framework needed for the change approach envisaged. These two latter contributions from the research are, I believe, potentially more generalisable to other contexts of institutional change management.

6.1 *The Flower Model*

It is important to recognise at this point that the approach taken has brought together Action Research with the establishment of a community of practice (Wenger 1998a; Wenger, McDermott & Snyder 2002) as the engine of change. The 'Daisy Model' (section 2.2.4) was very influential in the development of this study. This model of an AR community is an analogy to the structure of a daisy flower. Thus, there is a core group of researchers (see figure 2.2), *"each of whom sets up and leads a petal or mini-project group, and uses the core group for feedback and critique of progress"* (Melrose & Reid 2000, p.151). Where the individuals in the petal are not the Action Researchers themselves but who are nevertheless actively

engaged in the research process and where the petals extend into the surrounding medium that is the research arena occupied by other actors. In many ways these identities coincide with the first three degrees of community participation designated by Wenger, *et al* (2002) as Core; Active; and Peripheral, with Outsiders being further removed. In the 'Daisy Model' there can be several Petal Groups within their own segment of the research arena, that progress at different speeds. New petals can be easily added and existing petals can atrophy without prejudicing the existence of the whole project.

In this study, as described in section 5.2.5.2, there was also a core group, which was responsible for the development of the successfully implemented AR projects. However, although my initial analyses demonstrated the development of three petal groups (see Figs 5.3 & 5.4) subsequent reflection suggested that in fact what was happening in this study was in many ways different from the original Daisy Model.

As shown in Figure 6.1, the model structure can be reconfigured in relation to the role played regarding the continuation or sustainability of the project. Instead of a composite flower (Daisy Model), this new model represents the metaphor of a simple flower with the reproductive or generative centre of carpals (core group), the corolla of petals (middle group), and a calyx of sepals (shield group) (Ferri 1988).

Following the description made in section 5.2.5.2, the core group acted as postulated by Melrose and Reid (*op.cit.*), thereby generating new insights (the fruits) about the processes of teaching methodology, professional motivation and assessment. More importantly, they provided winning examples that acted as attractants for recruiting new participants. As hoped, although this core group had set out to explore aspects of professional practice (practical AR), towards the end of the study they had begun to discuss organizational systems and social construction of meaning (critical AR) (Carr & Kemmis 1986). They also contained and gave rise to a more select group who became involved in facilitating the induction of new participants.

However, the other two groups are the difference between the model postulated by Melrose and Reid (*op.cit.*) and the model that I am advancing here. The middle group (corolla of petals) was not constituted by participants in the core members' research projects but rather are professors that have been recruited but have not yet concluded the first cycle of their own AR projects within the respective WARG. They provide the direct support for and interaction with the core group. As in the real flower, these petal participants will only make an indirect contribution to the

nonetheless, without their protection the fragile flower might easily succumb to the aggressions that come from different external sources.

As Wenger *et al* (2002, p.56) observed in relation to the peripheral members of a community of practice: *“In a traditional meeting or team we would discourage such half-hearted involvement, but these peripheral activities are an essential dimension of communities of practice.”*

As mentioned in section 5.2.5.2, by initially following the Daisy Model to analyse this scenario the importance of the shield group was underestimated and even unrecognised. But through the data gathered by interviewing the individuals who withdrew from active involvement the vital role that they came to play in the UFRA context emerged.

Probably, due to the difference in context Melrose and Reid (*op.cit.*), did not give attention to the peripheral members of the community in their study, nor even notice if there was such a peripheral or shield group formed at all. Nevertheless, within the context described in sections 1.1 and 1.2 the protection provided by the shield group has been crucial to the successful conduct of the individual AR projects and the wider institutional impact of the adoption of AR and change agents in other circumstances would be well advised to keep a look out for this kind of development and to foster its formation.

6.1.1 Legitimate Peripheral Participation

Lave and Wenger (1991) introduced the concept of ‘legitimate peripheral participation’ as a means to describe the process whereby novices learn new skills and understanding from master practitioners by observation and attempting to replicate performances. The flower model provides us with insights into two separate processes of such ‘apprenticeship’. The first is the transition of Professors from the general environment into the Core Group of AR practitioners. The second is the transition of some Core Group members to becoming Internal Change Agent Facilitators in their own right.

Importantly this study was initially about how to bring about the former, but evolved to include generating an understanding of the latter. The latter is an essential part of achieving sustainability, but its seeds were sown much earlier in the process than first imagined when developing the action framework.

6.2 *The framework for the introduction and adoption of Action Research*

As described in section 2.4.1, this study was influenced by the ideas of many authors but started with the linear concept of change, namely Kurt Lewin's *Unfreeze-Change-Refreeze* model, and the eight steps of Kotter (1996) through nonlinear models such as that presented by Fullan (2000) and the concept of a continuous process of change (Tripp 2003) where parallel experiments conducted by participants have the power to provide their own answers (Ellerman 2005).

Definitively the overall process of this project did not follow a linear pattern in accordance with the model proposed by Lewin. The change process is better described as disruptive, discontinuous, fluid and fluxing, that is: *“organizational change processes are often [initially] modelled on a linear understanding of change in which the process is composed of individual succeeding steps.”* However, *“By integrating complexity theory perspectives on organization change, disruptive, fluid process of change may be better understood.”* (Styhre 2002, p.343)

This recognition enabled me to see the project as being a flux of complex, integrated and socially dependent processes that were affected by a range of causes (strike, class, professional background, election, etc) and concerns (salary, agenda, methodology, political connection, etc.). Thus, my initial understanding that the process of change would go through three linear and discrete phases, namely: a) mobilization; b) implementation; and c) continuation, has been replaced by the recognition that these are not distinguishable phases but rather characterise the pursuit of three different sets of objectives. These objectives are to garner and maintain motivation for the process, to bring actions about that lead to change, and to ensure that these changes will be sustainable by establishing supporting structures, resources and processes. Finally, I have blended these notions of the pursuit of objectives with the ideas of a cyclical process based on the AR methodology which leads me to postulate a new framework shown in figure 6.2 below.

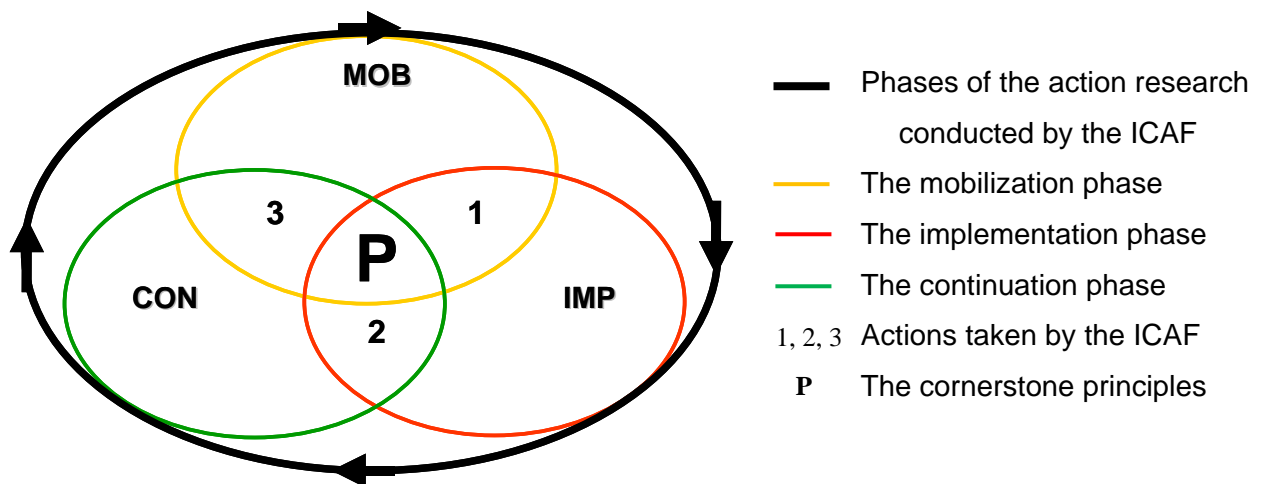


Figure 6.2: The graphic description of the approach used to introduce and to use AR as a vehicle for professional development and institutional change.

This is in effect a fresh, cross-sectional view of the time line originally presented in Figure 4.2 using the same colour coding. Within this framework, or Venn diagram, there are three levels of facilitated interaction amongst the three phases of the process. The zones labelled MOB, IMP and CON are those activities and interactions that took place within the phases of the ICAF's plan of work and that impacted upon their respective objectives. A first level that is characterized by actions that affect exclusively one phase of the process, which is represented by the individual contact between the practitioner and the facilitator.

The second level, represented by the three zones labelled 1, 2 and 3 are actions that were undertaken within one phase but whose impacts were felt upon objectives associated with another phase such as: the presentations to the rector and his rival (1), the formation of peer groups (2) and the SARG/WARG meetings and open seminars (3).

The third level, the zone labelled P, however, are seen as those actions and most importantly those ways of interacting that occurred almost continuously and that impacted upon objectives associated with all three phases of the project. That is, in order to be less vulnerable to the external pressures and to be sustainable this project had to be based on principles that would be above the simplistic assumption that in "*organization change the first stage of the process is succeed by another, and so forth.*" (Styhre 2002, p.345). These came to be seen as the core principles that must sustain the whole structure of the process of introduction and adoption of AR within a Rural University in Brazil.

It became clear that, as described by Kowalski (2004) (see section 2.3.3), it is important to have congruence amongst the different phases and actions throughout the overall process. This is particularly important in the matter of power. This means that operating such a framework can avoid the limitations called 'rarefaction', that is, it permits and fosters the open participation of all the different groups. Also, it means that the scope of the discourse and thereby the process of change *per se* is influenced as much as possible by all participants. Finally, it also means that during the 'storming' phase of group formation (Tuckman 1965) and the individual and collective 'depression' in self-esteem that occur in any transition (see Hopson & Adams (1976) in section 2.4.3), group cohesion is sustained through the discussions that take place and all opinions are considered and tested in a process that Habermas (1990) called 'Communicative Action'.

It is important to note that the core principles were not available to me when I started out, even if I could have guessed from other narratives that they might be important. I would say that the success of this project was rooted in four key principles developed and fostered by the insider change agent/facilitator and that, emerging from the research process, became identified as:

- Neutrality
- Voluntary participation
- Time
- Motivation

At this point I would like to elaborate on each principle and tease out those important aspects that infuse and inform their manifestation in this study.

6.3 Principles Needed for a Change Approach Within an HE Scenario

6.3.1 Neutrality

This principle is probably the most difficult point to be maintained in the entire process. Thus I would like to commence with a quotation that I believe will set a fixed point in my arguments:

"...politicians need to behave more like scholars and to engage in scientific debate, based on hard facts and evidence. Regrettably, the opposite happens too often, when academics involved in making policy recommendations become politicized and start to bend the evidence to fit the ideas of those in charge." (Stiglitz 2002, p. x)

As posed by Trigueiro (1999, p. 45), in relation to the process of change within the Brazilian Universities' context "...*change is an extremely problematic issue to be addressed...*"

In terms of management, it is possible that managers at UFRA may declare espousal of the values of McGregor's theory 'Y' but my observations suggest that their patterns of behaviour are more appropriately linked with managerial attitudes described in theory 'X'. In this sense, management self-perpetuates its own need for control, projecting its own sense of inadequacy (McGregor 2006). As presented before (see section 2.3), managers create practices of exclusion in the discourse of wider participation.

6.3.1.1 *Neutrality Ramifications*

In the light of what is set out above I present the first conceptual requirement for this project:

- **In order to conduct this process the change agent/facilitator has to be a professor recognised as Cognitively Skilful and institutionally Loyal. However, they must not have a close relationship with any political group.**

Thus, the AR project was neither seen as a political nor as a personal project but as an institutional programme instead, even though bottom-up. Such measures also prevented the possibility of the project being co-opted and directed by senior managers (Top Manager Archetype).

Furthermore, it enabled me, as a change agent, when presenting the project to other professors to be perceived as just Marcel, a fellow professor, instead of being seen as attached to one or other political group within the institutional dispute for power. Clearly at some stage, this neutrality was responsible for the engagement of professors in the project from all political groups involved in the election dispute ahead.

As the project progressed both political groups would often challenge this neutrality. This scenario was even more dangerous due to the proximity of the election. At this point it was absolutely necessary to reinforce the sense of neutrality through the process of clear accountability in which a series of regular meetings was held with both groups, especially with the rector and his rival. This strategy not only reinforced neutrality but also avoided co-option by any group.

At this point it is important to remember the nature of AR as a process that seeks to empower the participants. In this regard, as each participant set their own study agenda this provided neutrality to my participation as well as to the

involvement of the other participants so that gradually the locus for discussions was created that extended beyond the boundaries of the individual projects and encouraged discussion as a community of practice that questioned itself about what aspects of UFRA need changing.

Also, showing neutrality was an important step internally within the ARG, as the participants were members of both political sides as well as some being from the 'partner' archetype. Inside the group the main action in order to guarantee neutrality was to establish an agreement not to discuss internal political issues during the first group meetings. However, this rule will need to be refined in the near future if this project is to provoke wider institutional change. Nevertheless this action paid dividends as the participants gradually started to discuss more openly their fears, problems, ideas and plans during the meetings.

Although the process had been improving, it suffered a huge negative impact 3 months before the internal elections. During this time the level of trust clearly declined dramatically amongst participants and again my neutrality was vital to maintain group cohesion. At this moment the action of splitting the group according to their interest in a particular subject of research proved to be effective in maintaining the focus of discussions and avoiding more provocative issues while the neutrality within the group was tenuous. Thus, despite the election fever, inside the group the discussions remained focused on those three subjects and the action plans, respectively. Gradually, the election effect was overcome and even with just one month remaining to the election the group members started the first cycle of their AR.

During the first cycle of implementation all participants had their neutrality tested from the moment that they started to interact through the individual AR projects with professors at large from different political groups. As had happened to me, their involvement with other professors put them on the spot. Therefore, the success of this crucial stage depended on the capacity of the participants to demonstrate their neutrality. Thus, this could also have meant the end of their AR projects.

However, because of the nature of their chosen AR projects they had to have these professors involved for the sake of their projects whereas I had asked for volunteers. By using the metaphor of the Daisy Model (see the chapter 2 section 2.2.4) the reproductive success of the flower relies on the capacity to attract a vast number of '*pollen carriers*'. Thus, the issue about neutrality became the focus of the meetings and individual tutorials with all participants.

Individually each professor had to learn about it and then to assure their neutrality inside that institutional microcosm. Thus the second conceptual requirement is posed:

- **Each participant must be able to assert neutrality inside the institutional microcosms in order to break through the hierarchical and political barriers.**

With the participants' difficulty in asserting neutrality, some participants started to lose confidence at this moment of the project, as they were not able to recognise what was missing in their AR approach. In other cases professors were not able to establish neutrality even when they had recognised the need for it. These professors can be characterised as being of the 'Aide', 'Adherent', or 'Antagonist' archetypes. During the following stages of the project these professors struggled to develop their projects or in some cases decided to withdraw from their own AR projects altogether.

In contrast to the first cycle, the second cycle of mobilization did not have the presentation stage. In fact, it was characterised by a small number of professors that spontaneously asked to integrate into the group and were nominated by others of the former participants. The nomination did not follow the political pattern. However, this process emphasised the character of the poverty of relationships inside the institution, as showed in the sociogram analysis.

In brief, participants nominated professors closely linked to them no matter to which political group or hierarchical position they adhered. Nevertheless, at this stage only I had an assured neutral position so that the formal invitation of those nominated was made by me as the change agent/facilitator.

The second group of participants turned out to be as representative as the first in relation to their political and hierarchical positions, gender, experience and qualification. Nevertheless, this group faced far fewer problems regarding neutrality.

Two major factors are clearly responsible for this. Firstly, they were already involved in an environment where the former participants presented neutrality as a common approach. Secondly, the election process was over, which reduced considerably the level of tension within the group as well as within UFRA.

As described previously, conflicts regarding neutrality, although minimised, were present in a latent form, which could be even worse. Thus as a change agent/facilitator I had to recognise this and tackle it by bringing some situations where these problems are common to the attention of participants at regular meetings and individual tutorials.

Having learned how to assure neutrality, or at least having recognised its importance within their projects, former participants played an important role in giving support to the participants of the second group and keeping the focus of meetings on the AR purpose.

Thus, instead of avoiding delicate issues as with the first group, this time these issues were used to anticipate and reduce those problems that had been faced by the former participants. Brokering this contact participant to participant enabled them to learn based on their experience as 'Legitimate Peripheral Participants'. Otherwise this knowledge would be only an opinion borrowed from the change agent/facilitator.

In the end, this action caused the internalization of the concept of neutrality by the participants.

- **Neutrality has to become an open issue and be discussed exhaustively so that the significance of neutrality will not be taught rather it will be discovered.**

As the project reached the stage where the participants began through seminars to discuss openly their findings with other professors outside the WARG (continuation phase), the status of the neutrality achieved by them paid dividends as none of their researches were challenged either at a personal or a political level. Most importantly, they were all invited to support course coordinators and to discuss the broader use of AR within the university context. In addition to this, all participants who concluded their first cycle of AR reported that after the seminar they were sought out by colleagues to discuss more deeply their finding as well as to explain how they could work with AR. This became the 'self-nomination' or 'job enrichment', as described by Herzberg (1968). In other words, more and more professors at UFRA started to be aware of their *raison d'être* as professors and in a rational and purposive way they became willing to fulfil those responsibilities through the adoption of Action Research.

For all these reasons, neutrality is one of the major conceptual requirements of this project, and had to be asserted at the very beginning of the process by all volunteers and the insider change agent/facilitator to facilitate Action Research.

In regard to the next steps (cycles) this 'Ideological Neutrality' (Ball 1987) will certainly go beyond the status of freedom and autonomy in the eyes of 'Top Managers', in other words, as they do not have control over it this will be potentially viewed as a subversive process. In this case, the sustainability of the whole process will rely on the full commitment of the participants as well as on the critical mass to avoid co-optation. This concern leads my thoughts to the next principle.

6.3.2 Voluntary Participation

The general view about public university professors, as described by Trigueiro (1999), Krawczyk *et al.* (2000) and Venceslau and Brunetti (2003), is that they are professionals that firstly are only motivated by rising salary (money); secondly, that they need rules, structure, hierarchies and strong controls to keep working; and thirdly, that they prefer to be directed rather than to think for themselves. This view can be described as Theory 'X' posed by McGregor (2006), a terrible indictment of higher education. Well, I cannot deny these views totally and, in fact, these are to some extent congruent with my experiences of how managers in UFRA behave. However, it is easier to find professors that are (a) generally interested in their work and want to do a good job; (b) are motivated by a desire to learn and achieved their own potential; (c) want responsibility; and (d) avoid imposed controls over them. These characteristics are, on the other hand, those described by McGregor (*op. cit.*) as Theory 'Y'.

Thus, at this point it becomes necessary to answer the following question:

What should be the best approach to involve professors in the project?

The traditional and culturally accepted approach to follow in calling for participants could be the natural response to the question above. In other words, the top manager would rely on personal relationships to select participants. Thus all participants would have the trust of the 'Top Manager' and the obligation to do well, and the process would be describe as a 'battle' that should not be lost. In the end, the process would be an 'Ideological Disputation'.

However, I believed that such conflict and political interest are sources of resistance that prevent professors from the other side of the fence from taking part based on a shared vision. Or, even worse, these professors could react antagonistically, isolating and alienating themselves from the process and the institution. In this scenario, they would develop inverted norms and values that would be perceived as even more deviant. Thus, in this study I aimed for a different approach, as explained below.

6.3.2.1 Voluntary Participation Ramification

The lessons learned from the experience of development projects at UFRA (Botelho 2004) show that this is not a managerial problem but, essentially, a structural one (Ellerman 2005). Succinctly, I would say that wherever the desired outcomes require sustainable changes in actions and beliefs then the directive approach, in other words, coercion, will fail to achieve long-lasting results. Genuine

internal change requires internally sourced motivation and active learning by the participants.

- **The involvement of volunteers avoids initial resistance to the project and brings into the process mainly those who are previously motivated and are self-directed learners.**

“On the whole, the conundrum of actually helping people help themselves is so basic and subtle that trying to get a large development agency to operate on that basis is akin to trying to get an elephant to dance.....Regardless of the rhetorical and the genuine good intention, it is not going to happen.” (Ellerman 2005, p.242)

The quotation above is closely related to those several attempts by MEC to promote change and development of the Public Brazilian Universities. All these programmes, rules, regulations, assessments, punishments, etc, have inexorably failed and will fail just because MEC cannot operate on the basis of an ‘Autonomy-Respecting Assistance’ approach.

In the end, this directive approach is responsible for scaling up those structural problems. The process is seen as top-down, monolithic and monopolistic. The outcomes are perceived as unrealistic and biased. The actions are poorly implemented just to win financial aid, and besides, are seen as the managers’ responsibility and there are clear perverse incentives for ‘opportunistic’ behaviour.

“The resistance to the process of change are building up rather than spontaneous. Resistances are results of actions and decisions on the managers’ level that affect the academic level going to students and technicians’ level.” (Translation after Trigueiro 1999, p.86)

In using AR I tried to support indirectly those professors that were motivated and interested in developing their potential in a direction of their own choosing. Though I was able to get enough volunteers from all political groups they remained linked with and still had their particular interests. As a result, a series of problems still remain in relation to these structural problems, which I will address later under the ‘motivation’ principle.

Although minimised, the choice of volunteers will neither expurgate resistances and withdrawal throughout the process nor avoid professors from archetypes 2, 3, 4, 7 and 8 from being possible sources of disturbance in relation to those two structural problems pointed out in the previous paragraph. In fact, to

overcome these disturbances and build up a solid group is one of the tasks ahead of the change agent/facilitator.

- **The involvement of managers as volunteers should be prohibited.**

The restriction made at this stage about the prohibition of 'Top Managers' (archetype 1) from being involved as volunteers was responsible for minimising the structural problem of 'affiliation with political interests', thereby enabling the group to start and keep the process outside the management's direct guidance.

This action totally contradicts one of the six principles of quality management posed by Deming and presented by Gabor (1990, p.25): *"All significant long-lasting quality improvements must emanate from top management's commitment to improvement by which systematic change is to be achieved"*.

The manager's commitment to the change process, undoubtedly, offers spice to the debate. However, the way that it affects the responses of the professors from archetypes 5, 6, 7 and 8 as described above, in relation to the micro-political environment, has proved to be a drawback within the university scenario in the past (see chapter 1), when the prospects of long term change start to be perceived as subversive by the managers.

The choice of volunteers and the freedom to select the research focus is an alternative that searches for a decentralized social learning process (Ellerman 2002). Taken together, the complex and highly structured hierarchy is broken and as a result encourages a process of horizontal learning within the group of participants.

Associated with the concept of neutrality, working with volunteers proved to be able to establish a 'Professional Community of Practice' (Altrichter 2005) where all participants systematically asked questions, made suggestions, improved their cognitive skill, and fundamentally, discussed openly their findings, doubts, fears and ideas.

During the first cycle of mobilization this professional community of practice was gradually formed as the sense of neutrality was recognised and accepted by all participants. The formation of SARGs was essential in this regard. However, it was only necessary because the election dispute brought to the fore and increased the pre-existing tensions inside the WARG.

As the first cycle of implementation began the group of participants adopted a position of peripheral observers, as they were not confident enough about the methodology to act as critical friends. At this moment, the individual tutorials were important to build up this confidence since during the training stage of mobilization the time allowed for it (discussed next) was clearly not sufficient to provide a full understanding about AR.

Nevertheless, as soon as they started to improve individually their theoretical knowledge, their confidence grew and the formal WARG meetings as well as informal conversations between them became a place for professional learning. From this moment the group cohesion increased dramatically as they became connected firstly by what they were discovering and sharing in terms of teaching methodology, the role that a professor has to play and the rules that affect their daily activities and secondly, by how they just started to relate to each other, in other words, by the group identity produced within this professional community of practice (Tuckman & Jensen 1977).

The use of sociograms showed that professors at UFRA have a very limited level of relationship with their peers. So, the second cycle of mobilization had to take into account this important feature in order not to undermine group cohesion. Thus instead of another round of presentations and calls for volunteers the second cycle of mobilization followed this requirement:

- **The involvement of new participants must spread the impact of the actions, not cause disturbance to group cohesion and test the neutrality of the participants.**

By asking for nominations the participants were subject to the temptation of nominating professors based on their relationships, as commonly used by the managers or to avoid those considered as rivals within the political context. However, what was observed showed that the participants were not only trying to be neutral but also practicing neutrality, for they nominated professors that were related with their professional activities independent of whether they were from the same political group or not. Again, in the end, all professors had the right to refuse to be a participant, which reflected the main principle envisaged in relation to the motivational aspect of voluntary participation.

As the project carried on group cohesion was constantly challenged by what each professor 'knows', 'is' and 'does' (Wenger 1998a) so that to cope with these challenges the change agent/facilitator must recognise that the group of volunteers may accept to take part according to the same drives. However, they are not homogeneous, good or bad, will develop their structural hierarchy, have their personal interests and, above all, they are not working exclusively for the project, which leads us to the next major concept.

Despite the challenges the WARG kept its cohesion throughout the whole process which could be observed during the seminars delivered by some participants. After these seminars some professors outside the group who did not agree with the results, methodology or even the conclusions presented, expressed

their disagreement by trying to diminish the value of the research as well as the competence of the researchers. These attitudes were severely challenged by other members of the WARG who had occasionally heard these comments.

Importantly, the arguments used by these ‘guardians’ were made in relation to the value of the work and what they had learned through it. These attitudes show that all participants were sharing the same vision of the process. Also, it demonstrates the degree of confidence achieved in relation to the AR methodology.

In the end, through voluntary participation it was possible to have a group that could ‘represent’ the entire university. Also, each one became responsible for a small experiment that ultimately would break down a complex and highly unstable context. Therefore, it became possible to achieve a high level of collective evaluation and reflection about what worked and what did not work in these different contexts (microcosms). Thus, the higher institutional validity (macrocosm) of findings was observed.

6.3.3 Time

In Brazil, there is an old proverb that says: “*Pau que nasce torto nunca se endireita*” (When the branch grows bent it will never be straight). Well, it may not mean too much in English, but essentially it tells us that a process must be initiated correctly or risk never recovering.

Thus, in the next paragraphs I will try to show the principle of Time under two different and complementary vectors, namely, ‘pace’ and ‘schedule’: Both are related to the rhythm of the process of change so that all actions developed by the change agent/facilitator and the participants led to a collective learning process that was gradual and did not represent a violent rupture with ‘established tradition’ (Barbier 1985).

The pressure for results and the desire to get on with the process may be blinding for the change agent/facilitator. At the beginning a slow start must be expected. Also the change agent/facilitator must be prepared to make adjustments from the very first stages of the project otherwise the next steps will be dramatically compromised.

As I decided to work with volunteers and would like to be seen above all as a ‘Partner’ professor trying to show no political bias, I had to guarantee equal opportunities for all professors to know the project and to have a chance to be a volunteer. The obstacles presented in the results (section 5.2.1), concerning the presentation stage of mobilization, forced me to make adjustments in the way that I was approaching this stage of the first mobilization cycle.

6.3.3.1 Time Ramifications

Bearing in mind the first major principles (Neutrality & Voluntary Participation) I started to use a series of small and individual presentations because the initial plan proved to be biased regarding the number and, importantly, which professors attended those institutional meetings. That is they were very poorly attended and those who attend were, for the most part, linked with the dominant political group. Likewise, the change agent/facilitator must decide upon the moment to move on. In other words, the objectives and means of verification must be clear so that the constraints can be easily recognised (Paton & McCalman 2001) and then the change agent/facilitator will be able to generate options, which are tagged on to the original objective. Thus:

- **The change agent/facilitator must provide time for equal opportunities at all costs even to their own time.**

Time spent at this early stage will pay dividends as the process develops and I will address this in the next pages. However, one of these dividends can be noted even at this stage in regard to the professors that volunteered. Almost $\frac{3}{4}$ of the 12 participants came from the presentation made during the professors' union assembly and those individual presentations which were not planned in the first instance.

At the training stage of the first cycle of mobilization, a full week programme was envisaged, but, in the end, I had again to restructure the initial plan as the volunteers needed to own instead of to borrow ideas and opinions from an 'expert'. Thus, as the full week programme was reduced to just two days the training sessions were delivered trying to construct the sort of lessons that would be the foundation for the implementation phase. In the end, it is the change agent/facilitator who has to adapt to the participants' conditions and not the other way round even though this means it takes more time.

Furthermore, since it was expected that more volunteers than the change agent/facilitator could actually cope with would be recruited, then this training session provided the time for all volunteers to reflect upon their decision to commit to the project. Thus, for different reasons, further withdrawals were to be anticipated. Amongst these reasons, I would say that the time provided for reflection, in particular, enabled all volunteers to take their final decision based not only on the codified knowledge (in theory transmitted by the change agent/facilitator during the presentation) but also, mainly, in the light of the tacit knowledge (Polyani 1966) that was transmitted by twinning and consulting from volunteer to volunteer.

In the implementation phase, 'time' has now two different meanings. First, it is seen in the light of the dilemma of pressure as stimulation versus pressure as

inhibition (Messner & Rauch 1995). In relation to this dilemma, participants perceive the role of the change agent/facilitator differently; therefore, the line between helpful assistance and inhibiting pressure becomes blurred. In other words, some participants were motivated by the disciplining presence of the change agent/facilitator whereas others were simply inhibited by it.

The second meaning is that each professor has their own time scale. It means that participants will progress differently, at their own pace, so that they will become increasingly 'different'. Consequently, the change agent/facilitator will have to approach them 'differently'. Again, the individual tutorials were important to build confidence and to construct a full understanding about Action Research. Thus, gradually, all participants moved from the position of peripheral observer to the pro-active position of critical friend.

- **Time has to be used wisely to build up confidence through the right level of pressure.**

Once a working answer was found by some participants it was time to use the elevated level of confidence to spread the impact of these actions, without causing disturbance of the group, especially in relation to group cohesion. So that was the moment to begin the second cycle of mobilization.

As the project continued, even for the most dedicated participant, it was difficult to set aside time for a commitment into which they had entered voluntarily, and the demands of which they were likely to have underestimated. At this moment the change agent/facilitator must provide time to reflect and also to learn to reflect (Moon 2002). This time for reflection represents the moment of self-doubt where participants become aware of their realities and often begin to doubt themselves (see section 2.4.1), which inevitably leads them to a moment of low self-esteem. Thus, the change agent/facilitator must have the capability to accept the new reality, reinforcing the motives that had led them to get involved, revisiting the results achieved so far and thereby reducing the risk of more withdrawing, which could reduce the participants to a number insufficient to initiate the wider process of institutional change. However, all of this must not negate the principle of voluntary participation under the risk of creating dependency or resistance amongst the participants. This is indubitably the most critical moment of the entire project.

All actions taken so far had been responsible for improving the social capital (DFID 2003; Hooghe & Stolle 2003; Oh *et al.* 2006), which can emerge under a broad range of different circumstances. As the participants were in a position of equality in relation to each other and were working on the basis of 'reciprocity', social capital is more than desirable, it is vital for the construction and sustainability of the

network (professional learning community) that will generate the new understanding as well as the actions that the new understanding gives rise to.

Thus, when participants understand, accept, and above all, advocate that there is no one professor in the group who provides an overview superior to that which can be gained by other colleagues and no single professor can provide all relevant elements of understanding and actions, then that is the time when the project of introduction of AR as a methodological tool for institutional change moves from the microcosm (small scale projects) to the macrocosm (institutional impact).

During the implementation phase, the change agent/facilitator has to give 'more time' for some participants. That is, there is a recognition that some participants are willing to play a more peripheral role. In other words, they will assume a position that is partly dispensed from the pressure of immediate practical actions (Wenger *et al* 2002). These participants cannot be considered to be outside of the group, as is implicit in the 'Daisy Model' (Melrose & Reid 2000), on the contrary, at their own pace, their learning progresses and involvement gradually increases and, come the continuation phase, they will play a crucial role in assuring sustainability for the whole process as has been describe in section 6.1. Thus, in the analogy of gardening used by Woolhouse (2005), the Action Researcher must put time aside for AR and to recognise that development is not an instant process and has to have time allocated for all participants to develop their crucial actions in supporting the change process.

6.3.4 Motivation

Knowledge and understanding of what motivates workers in a particular and cultural situation is critical to the success of the work of a change agent/facilitator. For example, Huczynski and Buchanan (1991, p. 69), defined motivation as: "*the social process that influences others' behaviours and attitudes*", or as Evans (1999, p.179) pointed out it is simply: "*a condition, or the creation of a condition, that encompasses all those factors that determine the degree of inclination towards engagement in an activity*". In line with these statements, when I was planning how to present the AR project to professors at UFRA two major considerations drove the process: (a) how to present the goals and (b) how to present the process through which these goals should be achieved. In other words, how to influence some professors to adopt and to use AR in their daily activities?

6.3.4.1 Motivation Ramification

Within the paradoxical world of Brazilian Universities, as describe before in the literature review, the process of motivation is rather more subtle than just to

press the right buttons or offer rewards or even sanctions to get support. Thus, first of all, it is necessary to understand what are the goals that professors have and what mental processes lead them to pursue those particular goals. That is, what are the professors' motives and what drives them to them. As professors in Brazil are recruited based mainly on their research background and expertise it is easy to conclude that they might share 'curiosity' as a common drive.

Following this, on the one hand, and based on the ideas of Maslow (1968) on the other, I tried to present the project stressing that each professor would have freedom to enter as well as exit at anytime; it would be an opportunity for professional improvement; it would be based on free speech and honesty; it would be an opportunity to explore and experiment with new ideas and concepts; and the research focus would be freely chosen by them. On the other hand, at all costs I avoided encouraging the use of affection or relationship as a driver.

- **The change agent/facilitator must answer correctly the hidden question that each professor would like to ask: Why is it worthwhile for me?**

To work through the goals that each professor has and the extent to which they put value on them, seems to be inappropriate due to the great diversity and the impossibility of correctly addressing each one. For that reason it was never the intention of this change agent/facilitator to offer answers to any question. Furthermore, professors in Brazil have been consistently subjected to what the American psychologist Herzberg (1968) called 'hygiene factors', namely, factors that might remove dissatisfaction but which would not increase satisfaction or motivation, and this has driven them to a situation similar to that which was observed by Komin (1999) where workers are 'motivated' by good wages, company policy (promotions) and working conditions.

The lessons from the field of development, such as those provide by Chambers (1997), Ellerman (2002, 2005), Botelho (2004) and Kowalski (2004), have demonstrated that when a change agent/facilitator provides the answers that are sought they will, thereby, generate extrinsic motivators which, although they will give an impulse for the process, will not, in the end, bring real change because the source of the motivation is external and extrinsic and thus the effort is not owned by the participants.

Nevertheless, even though an insider, I was viewed at the beginning of the process as an external motivator and for that reason my influence at this stage could on no account be through extrinsic motivators. In fact, the way that I approached the professors was by trying to stress the intrinsic drives that each one was able to use

to respond to the question about why it should be worthwhile. In the end, as discussed in sections 4.1 and 4.3 about mobilization, 'curiosity' was not sufficient in itself to engage in the project. The possibility to develop professionally, which I expressed as individual and institutional rewards, was the real drive that finally would separate those who just enjoyed the idea from those, who were really willing to engage.

As described by Hopson *et al.* (1988) the psychological status of participants changed throughout the process so that I had to remind them from time to time about the reasons why they had engaged in the first instance.

- **The change agent/facilitator must act as an external motivator who nevertheless provides intrinsic motivation.**

The direct approach of Theory 'X' and the indirect approach of Theory 'Y' cannot be used at the same time. So, the 'carrot and stick' (Theory 'X'), must be kept in the background as a motivational backdrop because different participants will react in different ways, depending on past successes and failures. Thus, for different reasons each participant will experience a drop in their self-esteem that is a threat to the project when this is translated into more withdrawals. At this crucial moment two major temptations will appear: (a) to involve the 'Top Managers' and; (b) to force the process. However, both would lead the process towards the familiar path of a traditional programme of change. In other words, the change agent/facilitator would become an expert who will drive the process without the proper commitment of the participants. This is the first key point for the sustainability (continuation) of the process of change through the use of AR.

The main action of the change agent/facilitator is not to expurgate extrinsic incentives in favour of intrinsic motivators but to keep the extrinsic incentives in the motivational background so that they will not be driving the process. As Ellerman (2005, p.37) explained it: "*the 'stick' of punishment might be in the motivational background as a backstop, like a guardrail on a road, without determining one's actions.*" This scenario can be constructed when the change agent/facilitator reminds them of some initial small success, to challenge ideas and, most important, to establish open communication within the group for mutual support.

The latter is the most difficult action for the change agent/facilitator as the main characteristic of professors within UFRA is their individualistic behaviour. The sociogram analysis shows that participants had just a few, fragile professional relationships, which was part of the price that had to be paid for the choice of working with volunteers. In this regard, the focus group discussions played a pivotal role for the construction of group cohesion.

Withdrawal may occur even if group cohesion is established and they are fully motivated simply because some participants will not be able to develop their AR projects, as mentioned earlier. However, this time I put the withdrawal between inverted commas because these participants will continue to play the very important role as members of the Shield Group within the overall change process.

- **The change agent/facilitator must work with all participants.**

The temptation to work with those who are 'quick learners' is very well known by professors as well as the fact that the 'middle learners' pass undetected and those who seem to be unwilling to learn are forgotten. This is a crucial mistake that must be avoided by involving all participants in different tasks and different roles.

The use of Action Research as a methodological tool for institutional strengthening must be constructed based on individual achievement, but it is rather difficult to assess. Thus, instead of trying to measure the level of success that each participant is achieving the change agent/facilitator has to provide the opportunity (time) to enable all to achieve what they need.

In simple words, that is the moment when the group will begin to be split into subgroups (distinct Petals). This action will certainly enable the change agent/facilitator to avoid the temptation of over-driving the process; thereby avoiding the sense of dependency. At the same time, this action permits the identification of those professors who have a tendency to act opportunistically and thus the change agent/facilitator can cope with the structural problems mentioned earlier in the voluntary participation principle (section 6.3.2). That is, to counter the effects of the environment of political dispute and damage caused by professors of the 'Weathercock' archetype (see section 5.1.1) who are likely to use any chance to get a political promotion, even using sabotage.

Now, the second mobilization cycle is crucial for the process and should be conducted in relation to two major concerns about the process of change: (a) commitment and (b) enlargement. Thus, when each participant was asked to nominate one or more possible volunteers they had the opportunity not only to practice neutrality, as commented upon earlier, but also to start to play a collective role as a facilitator (the recruitment) in their own right. As a result of this action the group cohesion appraised through the sociogram analyses and observations, was indeed strengthened and the first, wider institutional impacts could be detected when the AR projects started to be noticed and discussed by professors outside of the ARG.

As quoted by Barbier (1985, p. 160): *"the enlargement of the action research group fires the first institutional alarms: analysis, innovation, and integration"*. These

alarms are represented, firstly, by the concern of professors (analysers) from all archetypes except the 'Peripheral Professor' that start to informally comment about the actions developed by the group. Secondly, some professors (innovators) start to apply similar practices in relation to their own daily base activities without applying the AR principles. That is, even without provoking structural changes the AR group (integrator) still starts to encourage other professors to try new approaches, which will be integrated into the institutional procedures by the actions of the AR group.

- **The control of the process must be owned by all participants**

The fact that the second group of participants was formed from nominations of former participants emphasised the sense of ownership and shared responsibility for the process. Consequently, the initial drives that were responsible for their engagement were reinforced and most importantly they were not distorted.

As each participant became more active and pro-active regarding the actions developed within the group they started to assume more and more the role of a facilitator (second apprenticeship transition) and not simply a supporter. These actions are critical to avoid dependency as well as the 'Moral Hazard' (Buchanan 1977). In other words, what participants gain in responsibility is fundamental to maintain the motives for doing AR instead of just waiting for a solution developed by others or any other form of dependency.

Participants being in charge of the process emphasises the sense of commitment so that they start to share the same role as the change agent/facilitator due to their role as external motivators for the later and former participants. This represents the moment when a shift in the course of their actions occurs. Some of the former participants move from the status of just being intrinsically motivated to the status where they are also extrinsically motivated, that is, they start to seek for an institutional meaning to their AR projects. This shift represents the establishment of the continuation phase of the project.

6.4 *The Institutional Dimension*

Of course these developments have not taken place in a vacuum and, just as they have been affected by the institutional environment, it was inevitable that they would in turn impact upon the wider institution. As a process of change, this project has at least started to change the balance of power in the university by altering the locus of professional discourse. However, this process was not intended to be subversive, so that the initial and only intention was to bring about professional empowerment as a mechanism to develop practices in decision making/taking

processes that would be based on collaboration and commitment of all to a process of communicative action.

In using the classical formula where Action is equal to Behaviour plus Motive ($A = B + M$) (Ellerman 2005) (see section 2.4.1), and based on the results and analysis presented in chapter five, I claim that the use of AR as a methodological tool for institutional strengthening within the context of a Rural University in Brazil (UFRA) has begun enabling the exploration of different motives as well as for building up a Reflective Professional Learning Community of Practice that together have created different actions within the university context, which are showing the first signs of contributing to institutional change.

To promote a sustainable process of change in a complex system like a university, a process that is able to cope with this complexity is undoubtedly necessary. Action Research enabled the individual's requirements to be stimulated in the first place and from that point on to build up a sense of ownership and commitment so that actions emerged and moved smoothly in the direction of the institution's requirements. Above all, actions founded on the individually based AR projects permitted this system to cope with the high level of natural unpredictability.

In addition to the Action Research, the behaviour and approach of the Internal Agent of Change also formed important components of the success, and were the subjects of the ICAF's own programme of AR. The congruence of my behaviour as an Action Researcher in my own right helped me to conform to the Core Principles of the change framework and to be an effective 'master' practitioner to my group of 'apprentice' legitimate peripheral participants.

Obviously, throughout the process of implementation some tensions would be expected, in particular due to the political dispute scenario (see chapters one and two). However, that is exactly why the Core Principles and congruence were so important. For instance, only a professor that is perceived as a 'Partner Professor' could be able to involve professors from all political sides at the start of the project. Thus, the 'neutrality' of the process can guarantee, firstly, the development of the action independent of the shift of political power and secondly, the 'formality' of the process of change. By formality, I mean the extent of the changes made and the sustainability of the overall process that can be measured after a few years by models such as that developed by del Val and Lloyd (2003).

6.5 In Conclusion

As discussed in section 2.2.5, it is inevitable that the nature of new knowledge generated by Action Research is substantially local, specific and

personal. This study has been no exception and some of this important personal learning will be explored in the final chapter. However, within AR two other categories of contribution to knowledge are possible, and this study provides examples of both.

The first is one which, though local and specific, may nevertheless speak to the challenges faced by other practitioners, and yet remains substantially a matter for them to draw meaning and application from according to their own judgment.

Since the early influences of Kurt Lewin's model to enhance productivity through democratic practice in the mid-nineteen forties to the suggestions made by McNiff and Whitehead (2003) about activities for structuring an Action Research project, several graphic approaches to describe AR methodology have been postulated. In this regard Bowen (1998) presents a comprehensive review and has advocated the use of a drawing-based system to describe conceptual frameworks as a mode of communication.

The modifications to the Flower Model fall in this first category with an invitation to change agents to look out for the emergence and significance of a shield group. In contrast to Bowen (op. cit.) and McNiff and Whitehead (op. cit.), I am trying here to draw attention to a dimension that was neglected by other action researchers.

The protection provided against the hostile elements of the external environment or institutional press by the shield group is an important feature of this project and certainly helps to generate sustainability for the overall process. Thus, a case can be made here in terms of projects that envisage institutional change in a highly political environment. These peripheral participants are key elements to sustain the work developed by core members of the community of practice.

To underestimate or even to fail to recognise its importance can be considered one of the reasons for the failure of previous attempts in bring about institutional change and professional development within the Brazilian Higher Education setting.

Without the participation of the shield group all resistance emanating from those professors outside the ARG would impact directly and exclusively upon the core group, adding to their existing share of burdens. So I must advise that change agents in other, similar circumstances should keep a look out for this kind of development and to foster its formation.

The second category is that new knowledge which appears to be more generalisable and for which a case can be made for its wider applicability. Although, as Williams (2005, p.71) recognised: “*the legitimacy of any statement of true belief is always going to be contingent upon the strength of argument that one can mount to defend the propositional validity of the greater web of true beliefs of which it is a part.*” However, within this second category is an appreciation that the framework for the change process has a dimension of intentionality as well a chronological sequence of cause and effect, which interact with each other to impact upon success. For example, the actions intended to mobilize support and commitment also impact upon the efficacy of subsequent actions to implement and/or establish continuance.

Due to the disruptive, discontinuous, fluid and fluxing characteristics of a project that was intended to bring about institutional change within the HE context in Brazil the framework of actions to be adopted must consider the non-linear aspects of such a process. Thus, each phase conceived in a linear approach must be translated into an appreciation of the various objectives behind each action so that the change provoked by a specific action can provide support or be used as resource to other objectives placed in a different level of action.

This is reminiscent of the concepts underpinning the Complex Responsive Process approach to studying change captured in the aphorism that: “*organizations are viewed as patterns of interaction between people that are iterated as the present.*” (Stacey & Griffin 2005, p.3) and with its appeal to general application. In this instance that appreciation reaffirms the need for change agents’ actions to be congruent with their objectives through adherence to a set of core principles that must sustain the whole structure of the process of introduction and adoption of new procedures.

Regarding the context explored within this study, to prevent the progressive loss of participation the principles to be used are neutrality, voluntary participation, time and motivation. Thus, the sustainability of the whole process will rely on the full commitment of the participants as well as on the critical mass to avoid co-optation. As any process of change, this project started to change the balance of power into the university. However, an ethical change process can not be subversive and in this Action Research is a methodology capable of bringing about professional empowerment as a mechanism to enhance participative practices of decision making/taking based on collaboration and commitment of all. For, as Reason and Bradbury (2001, p. xxvi) recognised:

“A structuration perspective therefore offers theoretical support for seeking leverage for desired change at macro levels through intervention at the individual and dyadic or small-group micro levels.”

Consequently, the Action Research methodology enabled both the individual's requirements to be stimulated as well as to build up a sense of ownership and commitment in the direction of the institution's requirements. Thus AR projects permitted the agent of change to cope with the high level of natural unpredictability

At this point it is necessary to review the overall process in which I have been immersed. So, the next chapter is dedicated to presenting the process of change in a retrospective way as a result of my AR experience.

Chapter Seven

7 Final Reflection

At the end of chapter two I presented a model of the change process that I envisaged bringing about that I reproduce here as Fig. 7.1.

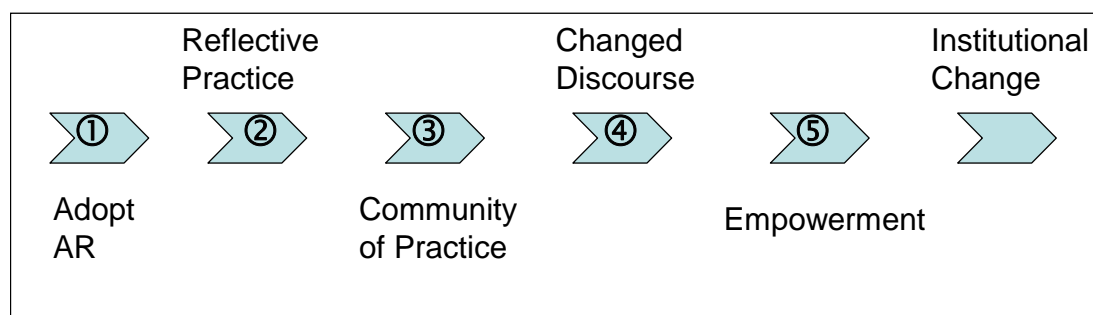


Figure 7.1: The hypothesis of Action Research mediated institutional change.

This process starts with the introduction of AR (1) leading to reflective professional practice of UFRA professors (2), leading to the establishment of a community of practice (3), leading to changes in institutional discourse (4), leading to empowerment of rank and file staff (5), leading to institutional change. This summarises the thoughts and beliefs that were to guide me through my journey as an insider agent of change. Subsequently, in chapters three and four, I have presented the way that I had planned to conduct this study and how I had collected the evidence that would illustrate what was happening as a result of my actions as an agent of change. Then, chapter five has been dedicated to the presentation of the findings, the facts and the process of change itself, demonstrating that each stage has been reached and crossed by using the evidence acquired through a range of data collect instruments. Finally, chapter six has been devoted to the process of reflection about the overall process and how the model of change proposed at the end of chapter two was really put into practice by me as an internal agent of change.

Although the literature of Action Research is filled with rhetoric – phrases, slogans and metaphors – that can inspire possible practitioners, there are no ready recipes or a ready made methodological Bible. Within this study I started from an initial, rudimentary model and throughout the process I created my own theories and therefore, modified the model and created concepts in order to understand, explain, and answer my own questions.

As a subjective participant in an Action Research study, I would have brought knowledge, interests, priorities, and values that would have been confirmed or put at

risk in the Action Research group. This Chapter is part of my efforts to recognise and problematise that personal subjectivity, and my discourse as a PhD candidate, participant, facilitator, researcher of the Action Research process and agent of change.

In contrast to the previous chapter, I will reflect here upon the changes that I have been passing through since I started this study and how important they have been in order to arrive successfully at this point. I will then reflect generally on my successes and difficulties in facilitating an Action Research group of professors of a Rural University in Brazil, and more specifically on how the group became a place in which I could learn to apply the useful theory and practice of the management of change. Finally, I will conclude with my vision for the future of this project and UFRA.

7.1 *The personal change*

From my initial position as a novice action researcher, undertaking this study has strengthened and deepened my understanding and appreciation of the processes and nuances involved. I am confident in claiming that this study has indeed been an authentic piece of Action Research because it has been grounded in the principles that distinguish Action Research from a purely reflective praxis or a total quality management cycle, amongst other similar approaches to learning.

Firstly, throughout the whole process, there was the open participation of the whole academic community through the formation of a professors' community of practice that adopted and reflected upon the new paradigm for their reality. Secondly, the entire process was action-based, that is the reflective process came from the actions developed by myself and the professor practitioners. Thirdly, I critically and systematically gathered data regarding the impact not only of my actions, as the IACF, but also the impact of the adoption of Action Research by some professors, and the institutional context that contributed to an empowerment of the practitioners and the inevitable challenge of the *status quo* represented by the dominant epistemology and its associated discourses. Finally, I have participated as a member of a wider community of practice by subjecting my experiences and analyses to the scrutiny of a wider group of fellow change agents through conferences⁴⁰, seminars and publications.

This research began with one idea that then led me through a whole series of questions. However, amongst all, the first question was the most important: "How could I act in order to provoke a process of institutional change and strengthening?"

⁴⁰ For example, in 2006 for my work at UFRA I received the Prize for Pedagogical Innovation awarded by the Brazilian Association of Higher Agriculture Education (ABEAS).

From that question emerged Action Research as a methodological tool that seemed to have the potential to give support for the process.

As McNiff and Whitehead (2006) observe, Action Research is a lived experience that it is impossible to capture adequately in linguistic forms. Like a person trying to learn to swim, you can read books, view video footage, observe others doing it, listen to the verbal explanations of experts – but you cannot achieve and fully ‘know’ the practice of swimming until you get in the water and try it out for yourself. Then the full meaning of some of the challenges become ‘real’ for you and you are able to find your personal responses to them – which is the act of generating knowledge about practice.

So it was for me. When I started this study I had done many of the activities listed above in order to understand what I was supposed to do in my Action Research study, but I have only come to understand the challenges as I have struggled to put the ‘theory’ of AR into practice. Consequently I have made many errors and learnt from them during the processes of action and data collection, but feel that I have achieved a degree of capability. Nevertheless, experience has shown that the greatest challenges lie in the aspects of analysis and the presentation of my accounts of my findings, particularly in the processes that deliver credibility to those findings.

The main concepts and characteristics of Action Research have the potential to direct the process in such a way that the change agent/facilitator would be able to act successfully where other projects had failed. In other words, it holds the promise of bringing about the capability to put into effect the principles that could guide the whole project to conform to development philosophies and practices laid down by, for example, Freire (1971a), Hirschman (1993) and Ellerman (2005). Thus the change agent/facilitator should be able to assume a position of equality in relation to the other participants, to avoid the co-optation of the process by top managers, to manage the pace, to find the right motives to carry it out and finally to assure sustainability.

However, despite all the knowledge gathered through the literature review of previous studies, my initial way of acting was driven by my positivist background (Parker 1997). The entire cultural framework of the university system in Brazil led me to act in favour of the inductive activities of science, searching for experimental facts and simple recipes. Thus, the question that must be asked in hindsight is: “Was I prepared to assume the role of an agent of change at the very beginning of this process?”

Definitively the answer is: “not totally!”. Obviously, I was motivated and devoted to the process, which can be confirmed by the reaction of professors willing to participate as volunteers above my initial expectations. However, I can now recognise that I did not fulfil all the aspects required in such a process. That is, the change agent/facilitator has to be in a position to foster total commitment whereby all participants must share the same responsibility because all recognise the same principles, the same needs and fundamentally the same understanding about the way to achieve the main goal: Institutional Strengthening.

My strong positivism pushed me into a routine of looking for desirable outcomes and how to find the most effective and efficient way of reaching the chosen ends. Therefore, it was not as straight forward as I had understood it to be and I was not totally prepared for the challenge. The rollercoaster described by Hopson & Adams (1976, p.13) as the ‘self-esteem transition’ held me for a long time at the self-doubt stage, as I acknowledge and present in sections 5.2.1 and 5.2.1 when I was able to recognise myself in the attitudes of the participants of the AR group.

Thus, in answering the second question asked early in the introduction (“What is the best way to introduce an Action Research approach for academic staff at UFRA?”) it was essential to understand more fully the importance of adopting an attitude of unconditional positive regard toward each participant, the ‘equal opportunity’ for everybody to take part in the process and the implications of this process to all involved. Therefore, the less and less I was perceived as an expert, the more and more the participants could see themselves as empowered. In fact, after the first cycle of mobilisation was precisely the moment when I achieved my *emancipation* from the distortions of ideology, tradition and habit and became properly rational and then I was truly working so that all participants achieved this same emancipation.

In the end, we all became active and pro-active components of the whole process and we simultaneously depended upon each other for the successful pursuit of our objectives (a vision of the ideal kind of professors and institution). This is one of the cornerstones of this type of process. This represents the moment when I was perceived by participants and other professors more as an agent of change than just a fellow professor. More importantly, I started to act more and more as a facilitator⁴¹ should do. The failure to achieve this adjustment has led many projects of professional development, organizational change, institutional strengthening and

⁴¹ Heron (1989, p.11) characterizes a facilitator as “a person who has the role of helping participants to learn in an experiential group.”

other similar initiatives in Brazil to an inevitable collapse, as reported by Trigueiro (1999) and Krawczyk *et al* (2000).

My own experience (Botelho 2004) had shown me that in the past the positivist posture of an expert by an agent of change, although involuntary, promotes a distant relationship that leads to the creation of two groups, namely experts and participants. Whilst pretending to be participative, this approach creates two different and parallel worlds that certainly would collide at some time. Some authors refer to this model as “freeze-unfreeze-refreeze or unfreeze-change-refreeze” (Lewin 1947; Goodstein & Burke 1991; Schein 1995). Thus, such processes of change would seem to need a pause, from time to time, to equalize those different realities or at least to agree at a midpoint, so that the ‘experts’ and the ‘participants’ can ‘sing’ the same song.

By contrast, through Action Research I was able, and learned to interact and truthfully communicate with participants in order to create a community of practice without a rigid hierarchy so that this community could easily adapt itself to the challenges posed from the political and structural conditions surrounding the project. This is the answer to the next research question: “How can university professors with little knowledge of Action Research be trained through the actions of this action researcher, supported by experienced researchers, to develop professionally and build their own capacity for change by engagement with another research methodology?”

Therefore, I can now conclude that this scenario would only occur if an insider change agent/facilitator would be leading the process in a manner that was congruent. In this sense, it is important to revisit Ellerman's (2005) principles for autonomy respecting development, with emphasis on ‘start from where the doers are’. My position as an insider change agent placed me almost exactly where the participants were. As an insider, I was not pretending actions or playing roles; they occurred naturally. In other words, I was able to identify actions that would ensure the four principles (neutrality, voluntary participation, time and motivation) for the success of a programme of professional development and institutional change within the Brazilian Rural University context.

As pointed out above, the involvement of an external agent of change would not necessarily be able to achieve successful adherence to all four principles, mainly in respect of generating internal motivation, due to the characteristic of strong corporatism among professors from the same university. Similarly, such an external agent of change would be constantly tempted to bring about change according to their own reality that would only magnify the distance between the two worlds or,

even worse, create unnecessary conflict with the project interest. Again, according to Ellerman (2005), a genuine internal change requires internally sourced motivation and active learning by the participants in opposition to the imperatives of the organisation. Thus the key element for my achievements as an ICAF was not to supply motivation which was founded upon external incentives that would undermine and atrophy internal motives but, in fact, to seek to truly empower people to change attitudes and then carefully to foster intrinsic motivation.

In the end, I created an environment of collective reflection that necessarily created ownership over the process for all participants so that the 'refreeze' stage became totally redundant since the process of change unfolds on a continuous basis. Therefore, the process of change becomes above all sustainable.

However, I had to learn how to act in favour of these outcomes. As I myself passed through the seven transitional stages of self-esteem, so all participants also passed through them. This gave me an empathy with the participants that was invaluable to my actions. Similarly, the behaviour of my external facilitator modelled the actions that I needed to replicate with my participants. Only a deep understanding of AR could forge the skills necessary to overcome the pitfalls of adherence to the positivist paradigm and the temptation to force the process and thus inevitably to create dependency.

This learning process is demonstrated by those several questions that I asked during the process, as highlighted in chapter three, such as: "What is the best way to introduce AR?" "What are the training needs required?" and "What is the appropriated time scale for the training?" However, as an action researcher, I was also concerned about questions such as: "How effectively did I present the project?" "Why have these particular professors volunteered and why have others not done so?" "How else could I have conducted the training?" "How else could I have managed the process of selection?" "How could I have encouraged them to think, challenge, and have confidence in their capacity to be competent action researchers?" and "How else could I have fostered emancipatory learning?"

These questions have been answered throughout the previous chapters. However, the sustainability of the process can only be assured when and if each participant acts at the same time independently and collectively (emancipation), that is to say, on their own they will change their reality on a daily basis following the same principles which will in turn result in institutional change. Explicitly, they also have to develop a deep understanding of AR in order to think differently from their positivist upbringing.

That was the object of my reflections during the course of the study and in this regard my diary was pivotal in supporting this learning process by forcing me to keep asking myself such questions.

7.2 Successes and difficulties in leading the process

I took for granted that all participants in the ARG would have an equal opportunity to speak, respecting others' right to speak and feel safe, and to tolerate and subject all ideas and perspectives to rational critical assessment. I also assumed that if the group set about establishing its tasks rationally, was aware of different perspectives, and its members cooperated to fulfil personal and group goals, then all would be well in the ARG, and some common understanding would be reached.

This was, at least, naive. The conscious and unconscious assumptions, behaviour and motivations shown during the process were themselves products of inequitable political and social structures and other processes. The ARG Practitioners needed to be very aware of the contexts (political and social) in which their groups operated and in which their participants practiced. Tensions and resonances among the personal and professional contexts of participants and the structural context (e.g. the established roles, beliefs and norms of the university) would impact on and shape the ARG, often in unexpected ways, from its earliest stages.

Self-reflection was crucial for the group of practitioners, as without it, Action Research could become another form of top-down innovation (Elliott 1991). The dialectic relationship between theory and practice, and between agent of change and practitioners in an AR group could easily be distorted through interactions which posit the action researcher/facilitator as the outside 'expert' in control of the Action Research process of others.

My early diary entries revealed that, although I was gaining a better understanding of the theoretical relationships between professors' practice and institutional issues, I had not yet begun to reflect in detail on my own practice and position. I was aware of this gap. Therefore, I began a more personal cycle of reflection in my diary. I discussed the difficulties and risks of translating educational and institutional change theory into a public critique of my own personal and professional priorities.

Uncovering taken-for-granted assumptions, priorities and beliefs can be an unsettling experience. A primary assumption of this Action Research study was that entry into a group comes with a commitment to promote and preserve a 'safe environment' in which there was freedom to question, challenge, contribute, listen

and explore. I observed that AR cannot result in a better understanding of the relationship between professors' practice and institutional issues without a critical or change-orientated perspective about one's own professional practice. An important part of my own learning process in this study has been to incorporate a critical dimension into my own understandings and practices.

Personal constructs often have unexpected 'thorns' that protect undesirable perceptions of ourselves as professors and individuals – thorns that are not felt until we begin to expand the boundaries of our thinking. An important function of the Action Research group was to provide the supportive and critical dialogue necessary to cushion the impact of those thorns.

In retrospect, planning for the group involved intense personal reflection, theoretical reading, and structuring of experiences so as to anticipate the needs and abilities of participants. My diary entries of that time indicate a growing awareness of the strengths, weaknesses, convictions and fears involved in the Action Research group. It was, after all, the future members who would decide how the group would actually proceed. The effectiveness of an ARG depends heavily on its members and the dynamics of the relationships that are established between them.

When and how as a facilitator I chose to intervene during the group process and the responses of others to those interventions was an important factor in the AR process. Ideally, interventions chosen by a group member would help the group function more effectively and facilitate its long-term development.

After the first section of interviews, I felt it crucial to bring my concerns before the ARG and discuss them in a non-threatening and constructive way. I exposed my concern about the need for a supportive group dynamic in the second meeting. In the process, I tried to identify clearly what was happening, and then provide direct and non-hurtful feedback. It was the main facilitation skill that I learned.

As a facilitator and AR practitioner, I have learned that progressive discourse on change arises from the interaction of different perspectives. This clearly introduces a dialogical tension within AR in small groups. Whilst it is the contradictions and possibilities arising from multiple viewpoints which open up new avenues for action (Winter 2002), exchanges between conflicting viewpoints within an ARG may be less than constructive and contribute to voices remaining silenced. As a result, the facilitator or any practitioner plays a crucial role in nurturing a productive and meaningful dialectic, avoiding or at least minimising resistance and withdrawal.

An important challenge for me as a facilitator and an action researcher like other participants in this process, has been to establish a workable balance between

the desire to express and defend my position in a logically consistent and critical manner, and to evaluate personal practices and stances in a safe, supportive and 'connected' environment. These two goals are not mutually exclusive, but work together to open up lines of argument and discussion.

All participants in AR must treat each other with respect being aware that knowledge is uncertain, often idiosyncratic and limited. A respect for and acknowledgement of difference must be fostered for successful AR to occur.

Action Research challenges all participants to permit others the 'reflective space' to expose prior assumptions, and to trigger learning and development. Taking on this challenge as a facilitator of AR was the source of my biggest struggles, but in hindsight, also the source of my greatest insights and personal development.

Thus, I have learned that participants in AR can never know about nor fully appreciate the experiences and understandings of others; therefore no single voice in the group – especially that of the facilitator – can be viewed as having privileged access to authentic experience or knowledge. In such an epistemological and methodological framework, the voice of the facilitator is but one of many in the dialogue of AR and is not privileged with a 'final' understanding of what others actually mean. Future accounts of AR must continue to problematise the facilitator's discourse, and examine their taken-for-granted assumptions about professional development and institutional change.

In my case, AR has encouraged me to reflect upon my own practices as a professor, as an agent of change, and as a facilitator of Action Research. By concentrating on specific problems and defining them more clearly, I have learned to deconstruct them and share information about practical solutions. Many of my taken-for-granted assumptions about professional development and institutional change have been made explicit, critically examined, reformulated, tested in practice and changed. In this process, improvement of my professional knowledge and practice has occurred simultaneously, and I have learned to see more clearly how the political is personal in the exploration of professional development and institutional change within a Rural University in Brazil.

7.3 Hindsight

At this point I feel that it would be instructive to explore what I would have done differently based upon the lessons learnt.

For instance, in conducting a similar project in the future, I would consider the enlargement of the number of participants for the first group of volunteers to twenty professors as it is likely that approximately two fifths of them would become part of

the shield group and, therefore, would be unlikely to demand the facilitator's full support. This in turn would maintain the number of taxing participants to around twelve professors. Most importantly, from the very beginning, I would foster the involvement of the shield group because they fulfil the role of protection for the main group coping with what Lyotard (1984) has called 'intellectual terrorism'.

So far, within the first cycle of this project I could sum up my personal professional development through this learning process in three different dimensions:

- Knowledge
- Emancipation
- Communication

In facilitating this process I started to theorise to solve the questions that were motivated by the distance between what I was trying to do and what was really happening (Whitehead 1989). Thus, I developed a deep understanding about the norms and values or as described by Riedel (1977), I developed ideological knowledge. Also following Riedel, I developed the technological knowledge about the methods, strategies and techniques necessary to successfully introduce and use Action Research.

However, this knowledge would have been in vain if it was not integrated into my daily practices. That is, I learned to develop the four tasks of the AR cycle in a way that enabled me and all participants to revisit aspects that would keep us on the right track throughout the entire process, so that we kept asking questions about our vision, evidence and ethics as agent of change.

When I started to see beyond the barriers of political and cultural values I was empowered by the emancipatory engagement in a continuous enhancement of social practices with the intention of changing those which result in inequality and injustice.

Finally, as this study, in its own right, is about action in relation to other persons, in accounting for my actions I had to be concerned not only with the norms, values and techniques or tasks used or developed, but I also had to learn about how to communicate efficiently in order to be able to correct or adjust this AR project during its development. Thus, I learned to be free from prejudice and partisanship, so that I tried to oppose conservative traditions of hierarchy, authority and loyalty, in order to build a community of practice devoted to act in favour of ideal behaviour, attitude, and institution, and embodied in the interaction with fellow members of the university.

Currently, the second cycle of this project is now involving the participation of the professors from the core group acting as internal agents of change in their own right. Now they are recruiting and supporting new participants, moving from being 'Legitimate Peripheral Participants' (Lave & Wenger 1991) during my efforts with them towards functioning ICAFs. This action researcher will now be facilitating these new ICAF's as I myself have been facilitated by the experienced agent of change during the first cycle.

As before, in this new cycle the new ICAF's must follow the four principles, as the whole process will be challenged more and more by the managerial system. Also I must help them to learn about the dimensions of their new role as facilitators.

Thus, I could say that I have, essentially, changed my attitudes. Through my praxis as an agent of change using AR, I have developed professional attitudes that I could not have developed from within a positivist paradigm. I learned and helped participants to acknowledge that something can be learned with a view to one's own action, and also that knowledge is developed and adapted by doing and in dialogue with others. I learned and demonstrated to the participants that initiative is necessary, taking responsibility oneself for progress. I learned and used a whole range of activities deliberately designed to plan the next activities. I learned and acted in conducting this process of change by using Action Research as a process that had to be cyclic, explicit, negotiated, dynamic and critical.

7.4 A vision of the future

Wenger (1998b, p.5) explored the relationship between communities of practice and the official organizations that provide them with a home. He identified five levels of relationship that progressed from 'Unrecognized' through 'Bootlegged' to 'Legitimized', 'Strategic' and finally 'Transformative'. Clearly the current status of the relationship in this study is between 'Bootlegged' ("*Only visible informally to a circle of people in the know*") and 'Legitimate' ("*Officially sanctioned as a valuable entity*"). The new scenario for UFRA has started to be outlined through this Action Research project and now a crucial question to the next cycle is posed: "Is the empowerment of professors through AR and the democratic discourse that follows it a subversive process?"

In recognising that it could be subversive, five possible scenarios are imagined for a forthcoming encounter between the managerial system and the development of the second cycle of this Action Research. The first scenario would be the imposition of impediments by managers in order to restrict the field of action of the practitioners and thereby the impact of their AR project over the whole

university. In other words, the managers can deal with these projects as threats to the *status quo* and by using their power over other professors they can make difficulties in different ways (Lyotard 1984) that restrict the scope of the Action Research projects.

In a second possible scenario, the managers can co-opt the Action Research project by using it to pursue their own, sectarian interests, determining those issues to be investigated, and manipulating the results and preventing some results or data from being openly discussed or even made public.

More drastically, in a third possible scenario, managers could simply suppress the whole project, punishing any attempt to use Action Research within the university context for any end. This may be done by making it difficult for professors to find time for AR, by utilising rewards and punishments to emphasise external motivation and by mobilizing the institutional culture to suppress any results.

In the fourth possible scenario, which could be precipitated by actions taken by managers to establish one of the three previous scenarios or may happen quite independently of management, the professor participants could withdraw from an institutional and emancipatory approach for their projects and restrict the scope of their Action Research projects to the level of individual professional development.

Lastly, the fifth possible scenario is represented by managers themselves being co-opted by the Action Research project, thereby being gradually won over by the attractions and benefits of the AR process to their own aspirations and the wider institution and ultimately initiating their own Action Research projects to explore issues of management and governance, which will create the environment for organisational learning.

For the interest of the process of introduction and use of Action Research as a vehicle for professional development and institutional change, only the fifth scenario represents the continuation of the process initiated by this action researcher. Consequently, the second cycle of this project starts with the following question:

How could I act in order to ensure that the managers will be co-opted by Action Research principles?

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Appendices

Appendix A: Questionnaire used to the sociogram analysis

Questionnaire S1

Sociogram

This questionnaire aims to identify and create a “map” of your relationships within Ufra in two different levels: a) Ufra itself and; b) within the volunteers group of action researchers. Your answer is confidential and will be use only as support for the PhD thesis project.

1. Please write the name of until ten (10) professors with whom you have:

a) A relationship as a colleague or friend.

1	6
2	7
3	8
4	9
5	10

b) More often talk about yours, his or her professional activities.

1	6
2	7
3	8
4	9
5	10

c) More often talk about questions related with the daily context of Ufra.

1	6
2	7
3	8
4	9
5	10

2. Please write the name of until ten (10) professors within those volunteers in this action research project with whom you have:

a) A relationship as a colleague or friend.

1	6
2	7
3	8
4	9
5	10

b) More often talk about yours, his or her professional activities.

1	6
2	7
3	8
4	9
5	10

c) More often talk about questions related with the daily context of Ufra.

1	6
2	7
3	8
4	9
5	10

Thank you for your collaboration and do not forget our meetings!!!

Questionnaire TP1

Training Program Assessment

This questionnaire aims to assess the training program in Action Research delivered as part of the PhD thesis project of professor Marcel Botelho. Your answer is confidential and will be use only as support for the PhD thesis project, keeping the identity of the respondent anonymous.

Please use a "X" to indicate your answer in the multiple choice questions and write your comments when necessary on the proper lines and if necessary use the over leaf to expand you ideas.

1. In relation to the objectives of the training listed below. In what extend do you assess they were achieved? (1=not achieved; 4=fully achieved)

Training Objectives	1	2	3	4
To describe the objective of the introduction of Action research within the Ufra's context and as part of the PhD thesis of Marcel Botelho.				
To describe the main characteristics of action research.				
To demonstrate possibilities and potentialities of Action research as a tool for professional development.				
To explore the potential for change through Action research.				
To develop a critical analysis about action research.				
To provide conditions so that volunteers will be able to start their own Action Research.				

2. Regarding the different parts of the training program. How do you assess these following points?

a) Presentation quality:

() Very good () Good () Satisfactory () Poor () Very poor

Coments: _____

—

b) Content of presentation:

() Very good () Good () Satisfactory () Poor () Very poor

Coments: _____

—

c) Resources used (acetates, etc):

() Very good () Good () Satisfactory () Poor () Very poor

Comments: _____

—

d) Activities developed during the sessions:

() Very good () Good () Satisfactory () Poor () Very poor

Comments: _____

—

e) Relevance of the material delivered

() Very good () Good () Satisfactory () Poor () Very poor

Comments: _____

—

f) Contribution for your professional development:

() Very good () Good () Satisfactory () Poor () Very poor

Comments: _____

—

3. How this training program could be more effective?

Thank you for your collaboration and do not forget our meeting next week!!!

Questionnaire V1

Why to be a volunteer?

This questionnaire aims to identify factors that have made you to became a volunteer for this project of Action Research. Your answer is confidential and will be use only as support for the PhD thesis project.

Please use a "X" to indicate your answer in the multiple choice question and write your comments on the proper lines and if necessary use the over leaf to expand you ideas.

1. Write three positive factors regarding the way that you were addressed and had knowledge about this project.

2. Write three negative factors regarding the way that you were addressed and had knowledge about this project.

3. Which was the main factor that had contributed with your decision and to be a volunteer?

4. There was a factor that had in a way o other led you to wonder in no to be a volunteer?

() Yes () No

obs: If NO go to question 6

5. Which was it (were)?

6. How do you would have presented this project to get volunteers engaged in this project?

Thank you for your collaboration!!!

Questionnaire NV1

Why not to be a volunteer?

This questionnaire aims to identify factors that have made you to not become a volunteer for this project of Action Research. Your answer is confidential and will be use only as support for the PhD thesis project.

Please use an "X" to indicate your answer in the multiple choice question and write your comments on the proper lines and if necessary use the over leaf to expand you ideas.

1. Write three positive factors regarding the way that you were addressed and had knowledge about this project.

2. Write three negative factors regarding the way that you were addressed and had knowledge about this project.

3. Which was the main factor that had contributed with your decision and not to be a volunteer?

4. There was a factor that had in a way o other led you to wonder in to be a volunteer?
() Yes () No

obs: If NO go to question 6

5. Which was it (were)?

6. How do you would have presented this project to get yourself engaged in this project?

Thank you for your collaboration!!!

Questionnaire P

Professor Assessment

This questionnaire aims to assess and identify the level of some attributes devoted to a good professorial practice as indicators of good performance. Answer is confidential and will be use only as support for the PhD thesis of the professor Marcel Botelho, keeping the identity of the respondent anonymous.

Please use a "X" to indicate your answer in the multiple choice questions and write your comments when necessary on the proper lines and if necessary use the over leaf to expand you ideas.

1. In which semester are you registered? _____
2. In relation to aspects of the attitudes demonstrated within classroom listed below. How do you interpret assess the performance of the professor? (Please use the scale a follow: 0=Extremely Poor to 5=Extremely Good)

Professor Attitudes	Grade Scale					
Punctuality	0	1	2	3	4	5
Assiduity	0	1	2	3	4	5
Subject expertise	0	1	2	3	4	5
Purposeful lecture	0	1	2	3	4	5
Module organization	0	1	2	3	4	5
Relationship with students	0	1	2	3	4	5
Assessment process	0	1	2	3	4	5

3. What is your level of satisfaction regarding all professors from Ufra?

() Very good () Good () Satisfactory () Poor () Very poor

4. From the suggested aspects listed above in question 2 and according to your experience, what are the aspects that professors at Ufra need to improve?

Thank you very much for you collaboration!!!

Appendix F: Questionnaire used to the professor assessment by students in relation to the assessment process

Questionnaire P2

Professor Assessment

This questionnaire aims to capture students' perceptions of the process of evaluation of the Professors' performance of their three academic activities at UFRA. Answer is confidential and will be use only as support for the PhD thesis of the professor Marcel Botelho, keeping the identity of the respondent anonymous.

1. For each activity listed below (Research, Extension and Research), please select from the statements provided that express your opinion regarding the process of evaluation of the professors' performance within UFRA.

Research	
Is systematic and the critiria are fully adequated.	
Is not systematic, however the critiria are adequated.	
Is systematic but the critiria are not adequated.	
Is not systematic and the critiria are not adequated.	
There is not evaluation at all.	
Extension	
Is systematic and the critiria are fully adequated.	
Is not systematic, however the critiria are adequated.	
Is systematic but the critiria are not adequated.	
Is not systematic and the critiria are not adequated.	
There is not evaluation at all.	
Teaching	
Is systematic and the critiria are fully adequated.	
Is not systematic, however the critiria are adequated.	
Is systematic but the critiria are not adequated.	
Is not systematic and the critiria are not adequated.	
There is not evaluation at all.	

Thank you very much for you collaboration!!!

Questionnaire IP

Institutional Impact

This questionnaire aims to identify the number of professors that know about and/or are involved with the actions developed by the group of action research practitioners. Answer is confidential and will be use only as support for the PhD thesis of the professor Marcel Botelho, keeping the identity of the respondent anonymous.

1. Do you know what is action research?

() Yes () No

2. Have you heard about AR within UFRA?

() Yes () No If your answer was NO, please go to the question 5

3. Can you write the name of at least one professor conducting an action research project?

4. Could you, briefly, explain the project of this(ese) professor(s)?

5. Would you like to know about action research?

() Yes () No

Thank you very much for you collaboration!!!

Appendix H: Questionnaire used to the knowledge assessment of the participants when they finalised their action plan.

Questionnaire PA1

Participant Assessment

This questionnaire aims to assess your general knowledge about the action research methodology. Answer is confidential and will be use only as support for the PhD thesis of the professor Marcel Botelho, keeping the identity of the respondent anonymous.

1. Name: _____
2. Briefly state one reason why should you use AR as the research methodology for this project.

3. Which instruments of data collection you will use?

4. Who will be involved in your project?

5. State the reason for the involvement of each participant mentioned in the last question.

6. What do you intend to achieve with your research?

7. How you will guarantee the reliability and validity of you data?

8. What would you like to ask for the facilitator during the next tutorial?

Appendix I: Interview schedule used for the first tutorial.

Identification:

Name: _____

Date: ____/____/____ Hour: (s)_____ (e) _____

1. What questions are you trying to answer?
2. What are the main characteristics of these data collection instruments that you choose?
3. How are you intending develop research?
4. What is your feeling about these initial meetings?

Observations:

Appendix J: Interview schedule used from the second tutorial.

Identification:

Name: _____

Date: ____/____/____ Hour: (s)_____ (e) _____

1. What is your concern?
2. Why are you concerned?
3. What you can do about it?
4. What you will do about it?
5. How will you collect evidence of the outputs of these actions?
6. How will you ensure reliability and validity of your evidences?
7. What will you do then?

Observations:

Appendix K: Interview schedule used for the first individual interview (Feb 2005).

Identification:

Name: _____

Date: ____/____/____ Hour: (s)_____ (e) _____

1. Please could you comment about these observations made by me?
2. Do you remember the motives that led you to engage in this project?
3. Could you list and describe any difficulty in applying AR?
4. What have you learned so far?
5. What are the problems to implement your project?

Observations:

Appendix L: Interview schedule used for the second and third individual interview (June 2005).

Identification:

Name: _____

Date: ____/____/____ Hour: (s)_____ (e) _____

1. Please could you comment about these observations made by me?
2. How are you feeling about this AR project?
3. How did I help or disturb you?
4. What factor was crucial for your withdrawal? Or, What is the main factor in your opinion for the withdrawal of some participants?
5. Do you remember the motives that led you to engage in this project?
6. Could you list and describe any difficulty in applying AR?
7. What have you learned so far?
8. What are the problems to implement your project?

Observations:

Appendix M: Interview schedule used for the fourth individual interview (March 2006).

Identification:

Name: _____

Date: ____/____/____ Hour: (s)_____ (e) _____

1. Could you comment about these results achieved by the AR project?
2. What is your concern from now on?
3. Why are you concerned?
4. What do you think you can do about it?
5. Why do you think that it is the right think to do?

Observations:

Appendix N: Interview schedule used to the volunteer willingness assessment.

Identification:

Name: _____

Date: ____/____/____ Hour: (s)_____ (e) _____

1. Could you comment why the improvement of my own performance, motivation by the theme, availability of time, and to continue the teaching methodology course are argued as the main factor to be a volunteer?
2. Why, in your opinion, all volunteers mentioned time as the only factor that could make them not to be a volunteer?
3. Why would you present this project emphasising problems x solutions, emphasis on the institutional relevance, and emphasis on the individual reward?

Observations:

Appendix O: Interview schedule used to the assessment of the non-volunteer decision.

Identification:

Name: _____

Date: ____/____/____ Hour: (s)_____ (e) _____

1. Could you comment why time, do not believe in that methodology and, more duties are argued as the main factor to not be a volunteer?
2. Why, in your opinion, individual rewards, curiosity, and the personal relationship with the facilitator could make some professors to get involved as volunteers for this project?
3. Why would you present this project during the academic break, with emphasis on the individual motivation and rewards and, for senior managers?

Observations:

Appendix P: Structured observation schedule used.

People Observed: _____

Event: _____

() Meeting where _____

purpose _____

() Diary activities where _____

purpose _____

() Other _____

where _____

purpose _____

General Characteristics

Facial expressions

Oral expressions

Attitudes

Appendix Q: Diary page sample.

Wednesday, 12 January 2005.

"Today I watched three professors surrounding participant 3 in the corridor asking questions about action research, at first look they were well interested about that discussion of the AR project. I spent 10 minutes observing them and during this time they asked several questions and the answers provided by participant 3 showed a good understanding about AR and his project."

"Later, participant 6 told me today that students asked questions about AR that he could not answer properly and I suggested more reading about ethics and AR, but based on his body language I concluded that he was expecting something more direct. But I believe that I could not provide a direct answer."

"In the afternoon, I met participant 10 and he is thinking about whether to expose his action plan during the Institute meeting next Friday. He sounds very motivated, but I am afraid that it could be too soon for a open debate".

"Today participant 12 and I had a long conversation about her concerns in relation to the way that some colleagues will react to the AR project. She is clearly concerned about the possibility to have a massive rejection of her project. Her institute is constituted by the more traditional professors and she is the youngster. Maybe we are prejudging in a way that is prejudicial to the development of the process."

"Today I had a good indication of the complexity of this work. Each participant is going to a different path. I have to reflect upon the number of participants and the time available to provide the necessary support to them. This is the question for today: Is 12 the right number to start the process?"

Appendix R: Interview page sample.

Implementation Second Cycle

Interviewer: Please could you comment about these observations made by me?

Interviewee: "Well, it is not a simple question so I cannot give you a simple answer er I don't know er Ok!!! Let me start again. First, it is clear to me the improvement of participant 10, the process of students assessment is better and better. My own process of assessment is improving after I started to use insights collected from the project. Well, what I am trying to say is that I underestimated the amount of work necessary to do it because as a participant in this project I firstly thought that it would be the same as in the one that was conducted by participant 10. However, I will not be able to continue and before I had to stop in the middle of the process I have decided to stop now. As a participant I know the whole gamut of expectations created with this kind of project I am not intending to do that with the students and some colleague. Please do not think that I do not believe that it is necessary for me. I believe that we did not have the opportunity to learn about the teaching process and this research had blustered some of my previous concepts. Believe me Marcel, I really agree with yours observations, they reflect precisely the actual scenario of UFRA and our participation in this project.

Interviewer: Yes, I understood. So let me ask you a second question to help you to conclude your thoughts. Do you remember the motives that led you to engage in this project?

Interviewee: Yes! Of course I do! And I hope I can convince other colleagues to go to the open seminars. Maybe by attending these seminars we can engage other professors because if they have access to such incredible work they certainly will be as convinced as I am that this is the opportunity to put in practice they aspirations to the improvement of ourselves as teachers, but for me ... I guess I could continue to help participant 10 with his project, because sincerely I underestimated the amount of time necessary to be fully engaged in such project."

Interviewer: A part from "time", could you list and describe any difficulty in applying AR?

Interviewee: "I will be honest with you as you have been honest with me. You are really pushing me against the wall with this question, No, no, no it's not your fault! I said this because I am feeling guilty and sorry to disappoint participant 10 who invited me. However, I am sure that he knows that I do not have time after the modifications made by the course coordinators. But I do not want to be out of this process. Can I be part of the process without an action research project? I mean, ... er ... we have to do things differently, specially here, so that I would like to be involved but I do not know how because I really do not have time."

Interviewer: Yes, but what else a part from time is working as an obstacle to you in applying AR?

Interviewee: "I do not know. I can not figure out other reason. It is embarrassing at some extent, because I understand the importance of this project but I do not have time to execute my own project in the way that it has to be executed. I thought I had, but I hadn't."

Interviewer: Ok! So let's change the focus. Please, tell me what have you learned so far?

Interviewee: Well, the results presented by all participants during the seminars are brilliant and as you know I am integrated with the project of participant 10 and it is inevitable because we share the responsibility for the module, so that I think that I can still use action research without having to have my own action research project. What I am trying to say is that so far I learned that we need a collective approach to solve our problems. It is amazing how much I learned about assessment into these few weeks against all my years as teacher. Well, I could not forget the lessons about the necessity to take action and move forward our plans."

Interviewer: Interesting! Very interesting!!! So, to finalise, please sum up to me what are the problems to implement your project?

Interviewee: "Well, I will have to say time. I know, I know it is redundant. But it is true!!! Look, I am motivated, I understand the importance and I want to do. But I simply unable to set time for the activities needed. I know, I know, you would say it is just a case or prioritise, but it is not that simple. Believe me!!!. Obviously, there are other problems, such as to be able to engage other persons and the lack of understanding about AR, but they are all last important."

Appendix S: CV sample.

Personal Data

Nome	*****
Nome em citações bibliográficas	*****
Sexo	Masculino
Endereço profissional	Universidade Federal Rural da Amazônia. Av. Pres. Tancredo Neves, s/n Terra Firme 66077530 - Belem, PA - Brasil - Caixa-Postal: 917 Telefone: ***** URL da Homepage: http://www.ufra.edu.br
Endereço eletrônico	*****

Academic Formation

1983 - 1986	Doutorado em Recursos Florestais e Engenharia Florestal. Universidade Federal do Paraná, UFPR, Brasil. <i>Título:</i> Recursos florestais e Engenharia Florestal, <i>Ano de Obtenção:</i> 1986. <i>Orientador:</i> Sebastião do Amaral Machado .
1978 - 1980	Mestrado em Ciências Florestais. Universidade Federal do Paraná, UFPR, Brasil. <i>Título:</i> Estudo das Distribuições Diamétricas da Floresta do Planalto Tapajós-Pará, <i>Ano de Obtenção:</i> 1980. <i>Orientador:</i> Sebastião do Amaral Machado.
1972 - 1975	Graduação em Engenharia Florestal. Faculdade de Ciências Agrárias do Pará, FCAP, Brasil

Professional Acting

Universidade Federal Rural da Amazônia, UFRA, Brasil.	
Vínculo institucional	
1976 - Atual	Vínculo: Servidor Público, Enquadramento Funcional: Professor Adjunto, Carga horária: 40
Atividades	
3/1976 - Atual	Ensino, Engenharia Florestal, Nível: Graduação. Disciplinas ministradas Elaboração de Projetos de Manejo Florestal Fotogrametria e FotoInterpretação Reciclagem em Manejo de Florestas Nativas Regressão e Correlação
4/2004 - 6/2006	Atividades de Participação em Projeto, Instituto de Ciências Agrárias, . Projetos de pesquisa Levantamento do potencial de biomassa para produção de energia elétrica, em comunidades isoladas, no entorno do reservatório da UHE-Tucuruí.
11/1996 - 1/2000	Direção e administração, . Cargo ou função DiretorGeral.
Universidade Federal do Pará, UFPA, Brasil.	
Vínculo institucional	
2004 - 2004	Vínculo: Colaborador, Enquadramento Funcional: Professor eventual

Atividades

2004 - 2004 Ensino, Gestão Ambiental, Nível: Especialização.

Disciplinas ministradas
Manejo Florestal Sustentável

Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis, IBAMA, Brasil.

Vínculo institucional

2002 - 2002 Vínculo: Outro, Enquadramento Funcional: Gerente Executivo, Carga horária: 40

Atividades

6/2002 - 12/2002 Outras atividades técnico-científicas Unidade 1.

Atividade realizada
Gerencia Executiva.

Research Projects

2004 - 2006 Levantamento do potencial de biomassa para produção de energia elétrica, em comunidades isoladas, no entorno do reservatório da UHE-Tucuruí.

Descrição: Levantamento do potencial de biomassa para produção de energia elétrica, em comunidades isoladas, no entorno do reservatório da UHE-Tucuruí..

Situação: Concluído; *Natureza:* Desenvolvimento.

Alunos envolvidos: Graduação (19) / Mestrado acadêmico (2) / Mestrado profissionalizante (0) / Doutorado (1) .

Integrantes: Sueo Numazawa - Integrante / Brígida Ramati Pereira da Rocha - Coordenador / Paulo Luiz Contente de Barros - Integrante.

Awards

2002 Orquidófilo Emerito, SPO.

1999 Honra ao Mérito, FCAP.